

From painting by Edelfelt

LOUIS PASTEUR

"THE MOST PERFECT MAN WHO HAS EVER ENTERED THE
KINGDOM OF SCIENCE." (*London Standard.*)

"Blessed is he who carries within himself a God, an ideal,
and who obeys it; ideal of art, ideal of science, ideal of the
gospel virtues." (From address by *Louis Pasteur.*)

Strength of Religion AS Shown by Science

FACILITATING ALSO HARMONY WITHIN,
AND UNITY AMONG, VARIOUS
FAITHS

BY

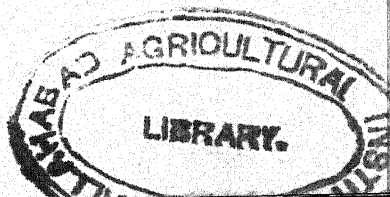
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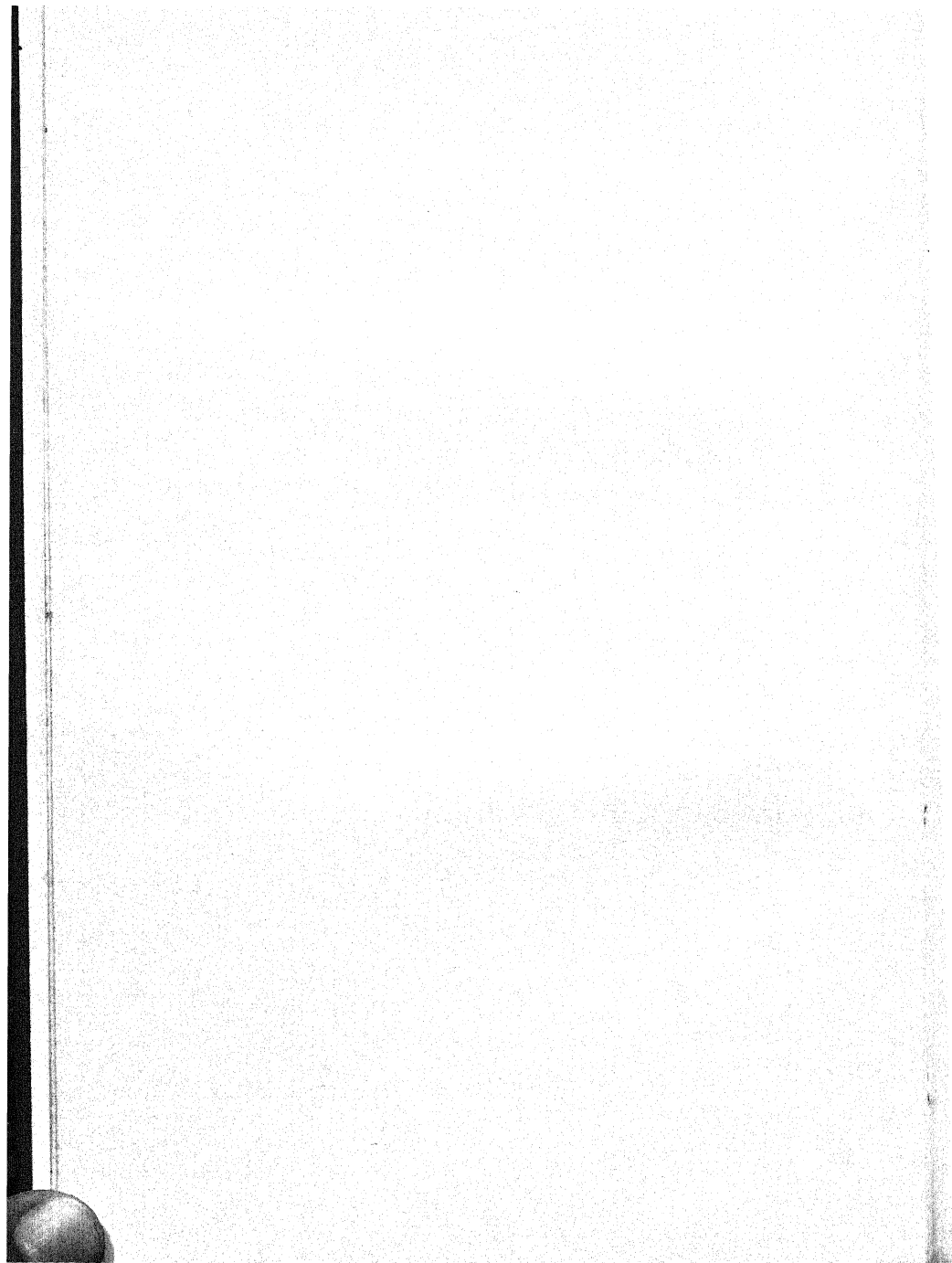


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IN LOVING MEMORY
OF
MOTHER



PREFACE.

THE press of the country and many magazines have repeatedly, in recent years, called attention to the tidal wave of immorality and crime which our former Ambassador to Italy, Mr. Richard Washburn Child, has fittingly termed the "great American scandal." Despite these urgent warnings, and due perhaps to the material prosperity heralded on all sides, very little if anything that is evident has been accomplished so far to stem the evil tide, otherwise than through police authorities which are gradually being overwhelmed. Especially deplorable is the fact that a very large proportion of evil doers, now over one million strong, consists of the youth of the country, both boys and girls.

This book would never have appeared if it had had nothing but familiar facts to convey. Indeed, its object is to submit that failure will probably result from the preventive measures now proposed, to point out what appear to be the flaws standing in the way of success, and to submit a more promis-

ing foundation for protective efforts on behalf of our growing generation of children.

President Coolidge and several investigators have rightly urged that religious influence alone appeared as the remedy for the prevailing evils. We cannot, however, overlook the fact that religion, enjoying all freedom as it does in the United States, has failed to prevent the extraordinary development of immorality and crime which is besetting society at the present time. Nor can it be denied that religion is steadily losing its hold on all classes of society; that dissensions in various denominations are weakening its influence and supplying ample ammunition to its enemies; that the Scopes trial aggravated materially the situation by exposing religion to ridicule; and finally, that something is demanded today to illustrate its actual strength when the elucidative power of science is taken into account.

Analysis of the question as a whole suggests two important queries: Is it religion itself which is failing us, or is it the manner in which it is being interpreted? Are all the dissensions referred to due to defects in the religious structure itself or are they of

man's own creation? As will be shown in the present volume, the loss of prestige of religion today is entirely due to man-made defects which are strictly susceptible to control and rectification. In other words, it will be submitted that religion itself, meaning thereby all creeds which accept God as the Supreme Being, has never been on a stronger foundation than it is today, thanks to the active support it is receiving from science.

If the Scopes trial served any useful purpose, it was that of demonstrating the widespread lack of information concerning the higher aspects of Biblical knowledge in its relation to science. Had the late Mr. Bryan given due attention to this phase of religious thought, he might have reached a conclusion similar to one submitted by myself in 1909 in a Commencement Address to the effect that: "What religion is teaching through faith, science is gradually proving through facts, thus unveiling itself as a Divine revelation." He would have learned that science is already contributing so much to our knowledge that an insight into its trend may already be gleaned: That of eventually

placing religion as a whole on a foundation beyond the reach of any militant aggression.

Another conclusion would have suggested itself to Mr. Bryan and his followers, if a survey of the whole field involved had inspired their attitude towards science in its relations to religion. This is that the views of Darwin and the interpretation of evolution of the second half of the last century including the so-called "monkey theory" of man's origin, do not represent the true position of science today.

As a distinguished Episcopalian dignitary, Bishop Manning, of New York, stated in a sermon delivered in February, 1924: "The view that science is in antagonism with religion, or that it excludes belief in the supernatural, is old-fashioned and out of date. A quarter of a century ago such a view was held widely, but science has left it behind. It belongs to a day that is past." As will be submitted in the following pages in fact, evolution is one of the greatest elucidative contributions to religion of modern times.

The attitude of science in our day towards religion is anything but antagonistic. This was well expressed by Dr. K. F. Mather,

professor of geology at Harvard University, when he wrote in the New York Times of July 21, 1925: "Many of us believe that science is truly discovering the processes of, and the methods which God, the Spiritual power and eternal force has used and is using to effect His will in nature," while simultaneously showing that "the law of life is love" "regardless of sect or creed"—to which I would add "or race," as a result of an intimate contact with human suffering of nearly fifty years.

The very identity of God and His presence in all nature as the Supreme Architect and His immediate participation in our destiny, both terrestrial and spiritual, is progressively being demonstrated by science. It is casting aside, through the wonders of the invisible universal ether, all philosophical doctrines which denied God on the plea that spirituality, an imponderable entity, can only be based on a blind belief. The stupendous manifestations of intelligence in all nature which led even Huxley, the renowned agnostic, to declare himself "utterly unable to conceive the existence of matter if there is no mind to feature that existence" are

rapidly being accounted for. As we shall see in the following pages, the creation of the universe, of matter, of our solar system, of the earth, and of all living things including ourselves, through the universal ether, imposes the need of God in the whole physical domain, the cosmos, to account for any of the phenomena known to us. In other words, modern science actually proves God's existence in nature, and the soundness of faith in Him.

Science is doing even more for religious thought today: It is acting as beacon for the great pathway to God, the Bible. Thirty years ago, a well known French writer, Mr. Brunetière, published an article in the *Revue des Deux Mondes* (1894), on the "Bankruptcy of Science" in its relations to religion. This was still in the hey-day of misinterpreted evolution theories, and religion fared very badly in the fray. Being in Paris at the time, engaged in editorial and research work, I sought to ascertain the causes of the evident vulnerability of religious teachings to such attacks and the disquieting growth of atheism it fostered. Ample evidence was obtained to the effect that the translations

of the Hebrew text published in the Bibles now used contained errors, especially in Genesis, which seriously perverted its main teachings.

Had the false interpretations given conveyed a lofty meaning such as one would expect from the Scriptures, criticisms would not have been invited; the opposite, however, was the case. Many teachings incompatible with elementary logic served as they did in the recent Scopes trial to provoke derision and irrefutable ridicule. For various reasons, the Hebrew scholars who translated the original text into English or other languages should not be criticized: The limitations of the Hebrew vocabulary, the peculiar grouping of words as illustrated in the third chapter of this book, and other difficulties, caused them to interpret it as best they could. As we shall see in the present volume, modern science was needed to make it possible to understand the original text and to give it its true and elevated meaning.

I had been inclined to look upon my own laborious analysis of the Hebrew text, now of thirty-two years' standing, with consider-

able misgiving. Fortunately, an eminent Hebrew scholar, the Rev. Dr. C. P. Fagnani, professor of Hebrew at the New York Theological Seminary, recently published a book ("The Beginnings of History According to the Jews," 1925, published by A. and C. Boni, New York) in which the erroneous translations in Bibles now in general use are clearly defined. Not only did it confirm the errors I had found, but revealed others for which due credit is given in the text.

Another of the essential features which science has served indirectly to elucidate has been the identification of the spirit (the "soulsprit" as the Hebrew text terms it) from our physical body. By showing that man was a product of evolution and that in keeping with all animals inferior to him he was formed of the same cosmic ether or universal matter as they were, science made it possible for me to establish, by a process of elimination, those qualities of mankind which are of Divine origin, and to connect them with the human attribute we term "conscience." The importance of the isolation of this mental factor from our animal instincts lies in the fact that it brings into

prominence those qualities in the child which enable us to guide his destinies in the path of righteousness almost from the cradle. The far reaching meaning of this feature as a preventive of moral decadence is self evident.

The main topics analyzed in this volume appear to me to offer a new foundation for fruitful endeavor. At no time in the history of the United States has the horizon appeared darker in all attributes which jointly represent all that is virtuous and noble in mankind. It is not a period for strife, therefore, among the millions of men and women whose aims are lofty in every sense, and particularly those in whom religion serves as beacon for the soul; *we need harmony at any cost.*

The newer interpretations submitted, by bringing to light their unsuspected origin, should eliminate all major causes of dissension. It is with due earnestness and regard for all concerned, therefore, that I would plead that such terms as "fundamentalism" and "modernism" be dropped, not merely because they are confusing and misleading, but owing to their tendency to

breed discord at a time when unity and cooperation are imperatively demanded.

Hence the fact that the words "fundamentalism" and "modernism" will not be employed in this book. "Literalism" will, however, be used to distinguish, when necessary, literal interpretation of the Biblical text from other versions suggested by the modified translations of the Hebrew text and those branches of science which tend to elucidate their Biblical meaning.

A development which would greatly advance the cause of religion would be the creation in all theological seminaries of a scientific department which would include at least geology, paleontology and general biology. Working in harmony with the philological department, religious thought would soon be placed on a very solid foundation. Endowments for such chairs would enable clergymen to obtain an education on broad lines through which they could prove the solidity of religious teachings which must now be accepted on faith. Religion, thus sustained, would soon become unassailable.

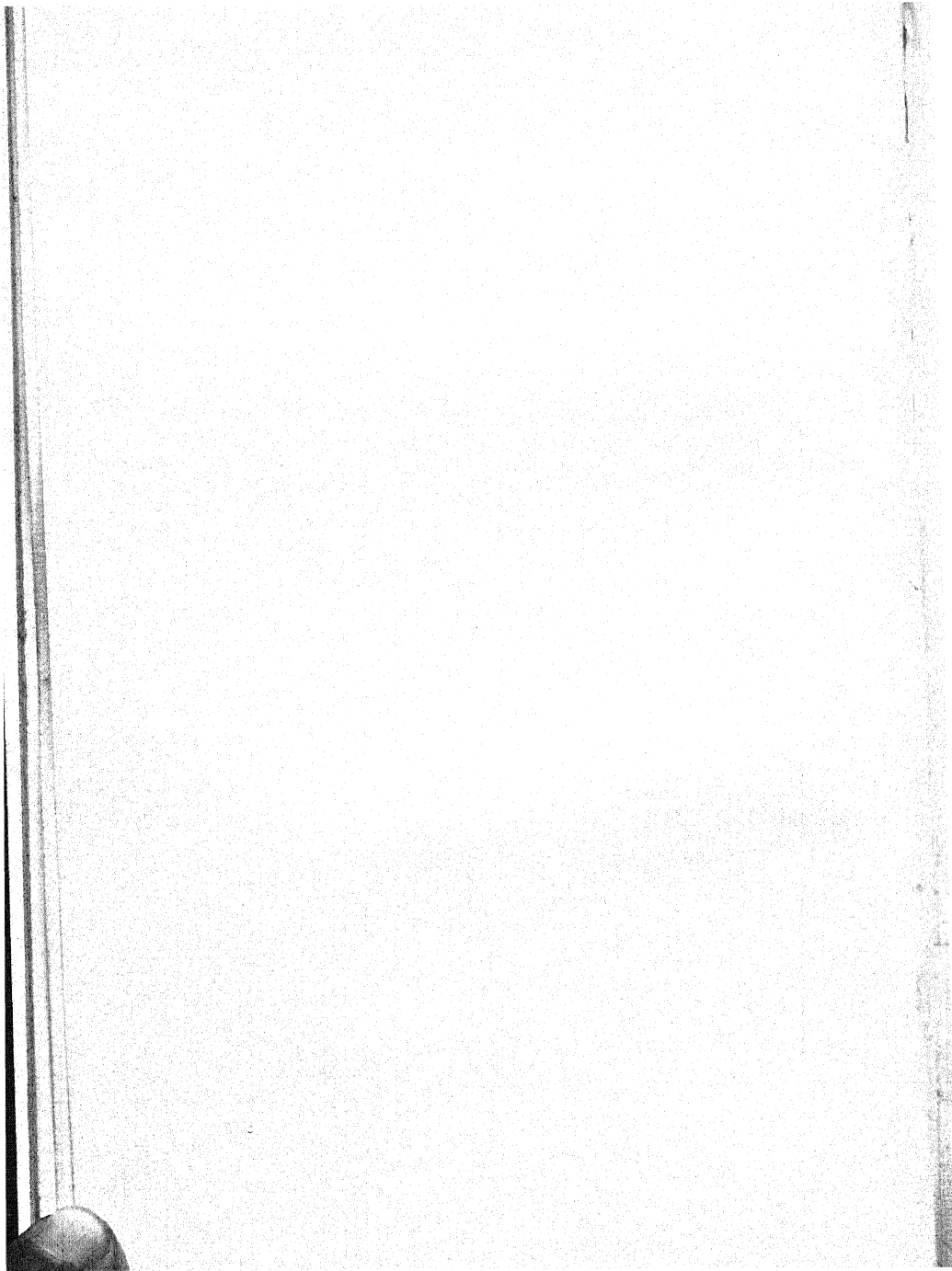
All other measures submitted for the protection of our growing generation of children

against the prevailing wave of immorality will be considered in the subject matter of this volume.

As over twenty branches of science are incidentally referred to in this volume besides the comparative study of the Hebrew text, it was deemed advantageous to the reader, even though colloquial language is used, to employ italics freely, to facilitate comprehension of the more important deductions submitted.

CHARLES E. DE M. SAJOUS.

Philadelphia, Pa.
March 1, 1926.



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CHAPTER I.

THE IMPERATIVE NEED OF DEMONSTRATING THE ACTUAL STRENGTH OF RELIGION.

JUVENILE DEPRAVITY FOSTERED BY RELIGIOUS DISSENSIONS DUE TO MISINTERPRETATION OF BIBLICAL TEACHINGS.

CRIME and immorality are increasing in the United States at a rate such as to render active repressive efforts an urgent necessity. Recently our former ambassador to Italy, Mr. R. W. Child,¹ after a careful study in the country at large of what he terms "the great American scandal" and "our crime tide," quotes the 1923 report of the American Bar Association to the effect that one hundred thousand lives had been destroyed by murder during the ten year period prior to 1923 and that the rate was increasing yearly, the number of murders in 1924 having exceeded eleven thousand. Comparison with other countries, England and France in particular, showed a striking difference. There

¹ R. W. Child: Saturday Evening Post; weekly serial, Aug. 1 to Nov. 14, 1925.

had been, for instance, but two hundred murders in England and Wales in 1923, according to the same writer. Taking into account the difference in population, this shows that there were twenty-two murders in the United States to one in England and Wales. Chicago, which has been termed the "crime capital" of this country, averages one murder daily to one in a fortnight in London, a city over twice its size.

The most deplorable feature of the whole situation is that the tidal wave of crime is in great part due to the youth of the country, our boys and girls. A recent investigation of the condition of morals in New York City schools "was enough to shock the investigators," according to Mr. Child, a fact which applies as well to other cities. A former New York prosecutor is quoted as stating that eight out of ten offenders are in their teens or their twenties. Mrs. Mary E. Hamilton, head of the New York Women's Police Department, speaks in the same vein, immorality among the young having reached deplorable proportions. It is plain that unless remedial measures become effective very soon, the present generation of children and ado-

lescents will in great part be lost in the pit of criminality.

Banditry, with the ever-ready revolver handy to kill if need be, also flourishes as it has at no time. In some states, in fact, vigilantes are paid two thousand five hundred dollars for a dead bandit, but only one thousand dollars if he be brought in alive! These are indeed reminiscences of the '49 days of California, when gold attracted, among others, most of the scoundrels in the land.

Here again, however, youths, boys and often girls of the bobbed-hair type prevail. Mr. Child writes, in this connection: "My astonishment is great at the sincerity, the vehemence, the conviction of judges, wardens, prosecutors, police chiefs, patrolmen, detectives, old professional criminals with whom I have talked, and with citizens who are writing me from various corners of the United States. Their voice is one voice. It says: the old criminal is outdone; today *the criminal population* which probably numbers in excess of one million is made up in large part of girls and boys. Parents, especially those who favor the "era of unrestrained youth," should now fully realize

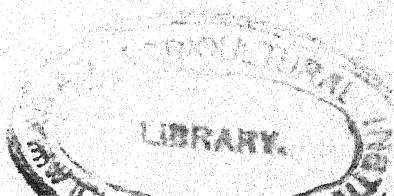
its consequences, particularly in view of the fact that by no means all the young criminals are the children of poor parents.

The World War is often blamed for this depravity, but if this were warranted, a similar state of things would prevail in other far more sorely tried countries than our own, where poverty is more common than it is here and lack of employment affects families by the hundreds of thousands, as is now the case in England. Nor are veterans of the World War numerous among the criminals captured. In fact, the very youth of the criminal class of our days eliminates in a great measure these veterans, most criminals being too young to have taken part in the conflict.

Judge Gary, Chairman of the United States Steel Corporation, in an appeal to the public to help in checking crime and rightly urging active support of the new National Crime Commission, states that "a large portion of the crime in this country is committed by people who have lately come to these shores from foreign countries." A similar statement is made by Mr. Child on the basis of statistics obtained from five

cities. The data bear, in Mr. Child's words, "on one hundred and twenty-five persons charged with murder or manslaughter—twenty-five random cases from each city in a specified period. The total of white persons so charged not foreign-born is only twenty. Italian born and the children of Italian immigrants score twenty-six. Russia furnished nineteen. Various countries of Central and Southern Europe, Greece, Austria, Roumania, Bulgaria, and so on, furnished thirty-five; negroes, thirteen; Ireland, England, Scandinavia, Germany and France and one oriental country, twelve. If any one cares to figure out the comparative strength of each element in our population, these figures are immediately convincing."

I am afraid, however, that some error of computation in which the use of "twenty-five random cases" is the misleading factor, mars the deduction reached by Mr. Child. According to statistics of twenty cities collected by the New York Times and published in an editorial article in its issue of September 6, 1925 (reproduced below, slightly rearranged in order to include all cities mentioned), it is in cities in which



NEED OF SHOWING STRENGTH OF RELIGION.

Chart showing that Cities which contain the smallest number of foreign-born give the lowest murder rate.

CITIES	PERCENTAGE OF MURDER RATE.	PERCENTAGE OF FOREIGN-BORN.
Memphis	65.0	3.5
Jacksonville	61.7	3.0
Nashville	38.7	2.0
Louisville	35.6	4.5
New Orleans	29.9	7.0
St. Louis	26.1	13.0
Mobile	23.3	3.0
Savannah	21.2	4.0
Cleveland	18.1	30.0
Sacramento	16.3	16.0
Columbus	15.6	7.0
Washington, D. C.	15.4	8.0
New York City	5.2	36.0
Boston	4.2	32.0
Paterson	3.6	33.0
Bridgeport	1.9	32.0
Lowell	1.7	34.0
Portland, Me.	1.4	20.0
Rochester	1.2	24.0
Scranton	1.2	20.0

the foreign-born are least numerous that the highest murder rate occurs, while in practically every instance (the only exception being Cleveland) cities which contain a large proportion of foreign-born show a very low percentage of murders. This does not mean, however, that the children of foreigners, brought up in this country, may not constitute a large proportion of the culprits. Many years of study in France have enabled me to realize that in that country, at

*Low foreign born high murder rate
 High foreign born low murder rate.*

least, honesty and straightforward dealing are the dominant virtues instilled in the child, whereas here, money-making, success in business, etc., are often the main topics upon which they are mentally fed through the current conversation of their elders in their homes, rich or poor. The children of foreigners who happen to become criminals here illustrate the contrast between the two kinds of home influence which in great measure decide a child's future morality. They are those who cast off the moral scruples of their "old people."

There is no doubt, however, that too many foreign criminals are allowed to enter the country, attracted by its wealth. Judge Gary recommends great care in the selection of foreigners admitted to the United States. From personal experience, police records or authorities should form the basis of inquiry by our consuls. Indeed, the two greatest scoundrels it has been my misfortune to meet were recommended to me, one by a foreign Minister of the Interior, the other by the Mayor of a foreign city. Magnates are often importuned by politicians for recommendations, which they sometimes grant without

ascertaining the past of the individuals recommended.

That the moral decadence is gradually, though stealthily dragging down the whole country itself, was clearly expressed by one of our most distinguished clergymen, Dr. Charles H. Parkhurst, when he remarked two years ago in the course of a sermon: "And I say unhesitatingly that the present tendency of our collective life is not upward and that while the durability of our American life and institutions is grounded in established character, it is a commodity that is not being turned out as it was two generations ago." Nor can any commonwealth endure, I might add, with depravity undermining its youth on all sides.

A determined and virile effort is imperatively necessary to turn the tide. How may this be accomplished?

President Coolidge, in an address before the biennial meeting of the Council of Congregational Churches, on October 20, 1925, urged that "religious influence alone appeared as the remedy for the evils that beset society," and that he knew of "no political method of dealing with these difficulties."

He said, moreover, that "the utmost ingenuity on the part of the police powers will be substantially all wasted, in an effort to enforce the law, if there does not exist a strong and vigorous determination on the part of the people to observe the law. Such a determination cannot be produced by the Government. My opinion is that it is furnished by religion." Indeed, "if faith is set aside, the foundations of our institutions fail, the citizen is deposed from the high estate which he holds as amenable to a universal conscience, society reverts to a system of class and caste, and the Government instead of being imposed by reason from within is imposed by force from without. Freedom and democracy would give way to despotism and slavery. I do not know of any adequate support for our form of government except that which comes from religion."

Unfortunately, ample evidence is available to show that religion is rapidly losing its hold upon the masses. Protestant churches of practically all denominations complain of poor attendance, and devise measures to turn the tide—which refuses to turn—while newspapers and magazines reflect the doubt of

many concerning the solidity of the whole religious structure. As a prominent teacher of Princeton Seminary, Dr. McMachen, expressed it recently, "there exist the most fundamental divergences in the religious world of the present." That they will continue under present conditions there can be no doubt—to the great detriment of religious influence in all directions.

The underlying cause of these dissensions, as indicated by a comprehensive personal study of the subject in all its aspects, is the self evident vulnerability of the first three chapters of Genesis particularly, to destructive and unanswerable ridicule. Mr. Darrow, in the Scopes trial, utilized this regrettable situation to the best advantage. It brought out clearly Mr. Bryan's inability to meet his attacks otherwise than by mere reiterations of his conviction that the statements in Genesis were literally those of God. This, of course, only served to accentuate the antagonism of persons having atheistic or agnostic tendencies. Simultaneously it sealed adversely, through the details heralded by the newspapers of the entire country, the fate of the *lukewarm millions* who are ever

ready to embrace a faith in which common sense will not have to be sacrificed.

What the influence of Mr. Bryan's attitude on scientists was can readily be imagined. His writings denoted clearly (having declared, in fact, that "he neither knew nor cared anything about science") that he had taken no pains to familiarize himself with modern knowledge concerning evolution, most of which hardly dates back to the dawn of the present century. Basing his conclusions on obsolete beliefs, he used all his powers and influence to have evolution barred from tax-supported educational institutions, as it is in Tennessee—a state of things which, according to Chancellor Hadley, of Washington University, of St. Louis, also threatens in from fifteen to twenty other states. Unfamiliar with modern progress on evolution, Mr. Bryan could not of course realize that he was starting a movement which, if successful, would eventually degrade the United States to the lowest level of intellectuality among civilized nations.

Indeed, most college bred men and women, and many others, know today that the "monkey ascent" of man (a myth, as we

shall see) is but a tithe of the question of evolution, as a whole; and that the latter is one of the most productive divisions of our knowledge of agriculture, forestry, zoology, botany, medicine, bacteriology, sanitation, embryology, anatomy, physiology, biological chemistry, and other branches of biology normal and pathological, besides those connected directly with the development of the evolution of man and the lower animals,—geology, paleontology and others. One cannot but wonder, in fact, how any legislature could pass a law so disastrous to the interests of public welfare and to the good name of the country at large.

There is ground for kindly consideration, however, even in this direction. Indeed, fair play suggests a pointed question which should greatly mitigate criticism of any kind: Granting that Genesis is a story which prompts mockery and thus cultivates enemies for all prevailing religions, Protestant, Roman Catholic and Jewish, what is there to replace it if it is eliminated on account of its defects?

In answering this question we must bear in mind that we are dealing with the very foundation of religious thought, *the identity* |

of God Himself and all His works, the universe, our solar system, our earth and all the living things it carries, including man. We must realize that its omission would compromise the whole Christian doctrine by relegating God to the status of the Spencian "unknowable" and, in consequence, the spirituality of the Father and of the Son, of us all in fact, to the limbo of oblivion, leaving to mankind, if anything, not much more than an animal carcass with its evil instincts and a mind itself derived from nothing higher than an evolutionary product of this same animal. This, indeed, is all that unfamiliarity with the modern drift of evolution could evolve.

With nothing to replace Genesis and the consequences of its loss, we can understand that the literalists—those who, unaware of the steady accumulation of learning which would save the day in God's own time—feared the consequences of the sacrifice.

It is because of this underlying thought which, I believe, is that of the literalists, that I urged in the Preface, the abandonment of the term "fundamentalists" and "modernists." Indeed, thanks to contribu-

tions of science during the experimental period which succeeded, about the beginning of this century, the observation period of the nineteenth century, the day has come, in my opinion, when it is possible to show that *Genesis, freed of errors of translation through the light shed upon it by science*, affords a solid foundation for both Testaments.

As such it is capable, while far more elevating than the prevailing interpretation, strewn as it is with translation errors as we shall see, of meeting the urgent needs of our period. Being derived directly from the Hebrew text, it conveys more accurately God's own inspirations. It will meet all needs, therefore, that literalists have desired to insure, while enabling them to form, with their normal colleagues of all kinds, theologians, scientists, and laymen (the bulk of our citizens, we must not forget) whose higher motives and aims are similar, a fighting force quite capable of causing right to prevail over wrong.

Harmony, under such conditions, would enable us, it seems to me, to meet President Coolidge's hopes in so far, at least, as vigorous and sustained effort could do so.

RELIGION AND SCIENCE AS ALLIES IN
THE DEVELOPMENT OF RELIGIOUS
KNOWLEDGE.

The views submitted in the foregoing section, suggest that a cooperation of all churches and science could accomplish more than would desultory efforts of separate groups, as is now the case. It would undoubtedly meet the approval of most scientists, and also of all religious communities, Christian and Jewish. As stated by Professor C. A. Ellwood, of the University of Missouri, in the 1924 opening address before the Yale Divinity School: "A new hope has come into the world—that science may unite with religion in the work of redeeming mankind."

In scientific circles the trend has long been towards religious philosophy and not against it. As expressed by Dr. L. T. More,¹ professor of physics at the University of Cincinnati: "The belief in God is the most general belief of all times. Most evolutionists indigantly deny atheism. And faith in God, whether it be the idol of the barbarian, the

¹ L. T. More: "The Dogma of Evolution," Princeton, 1924, p. 356.

Inscrutable Power of Spencer and Fiske, or the Divine Spirit of the Christian or Jew, carries with it the conviction of a power which instituted natural law and self-consciousness of the human spirit."

The moral drift of religion and science is similar, even though the influence of science on morality has been a mooted point in the minds of many. In truth, those who incriminate science are not familiar with its attitude in this respect nor with the morality preached by scientists. This, in fact, has been solidly established for many decades. Thus, thirty years ago, Dr. Charles Richet,¹ the eminent professor of physiology in the Paris Medical School, wrote: "On the whole, the morality taught by the church today is doubtless not very different from that taught by science. Whether it be upheld by science or religion, however, is only of historical interest. The essential point is that harmony and union between them prevail."

The trend towards cooperation has, in fact, been nurtured throughout centuries by scientists of the first order, among whom might

¹ Charles Richet: *Revue Scientifique*, January 12, 1895.

be mentioned Copernicus, Galileo, Kepler, Newton, Faraday, Leibnitz, Lord Kelvin and Pasteur.

In the United States the tendency towards religio-scientific harmony has shown steady growth on lines emphasizing their kindred aims. Thus, Professor K. F. Mather, head of the department of geology of Harvard, wrote recently: "Men of religion seek righteousness; finding it, they also find the truth. The further along the two avenues of investigation the scientist and the theologian go, the closer together they discover themselves to be. Already many of them are marching shoulder to shoulder in their endeavor to combine a trained and reasoning mind with a faithful and loving heart in every human individual and thus to develop more perfectly to mankind the image of God." Professor Patton, of the department of geology of Dartmouth College, also wrote: "I repeat, there is no difference between what is vital in science and what is vital in religion. In fact, underneath, science *is* religion, and religion *is* science."

Becoming reverence and humility is a trait of scientists comparable only to that of

theologians. Professor Metcalf, of Johns Hopkins University, has urged, for instance, that "we should not attempt to guide God's self-revelation into channels of our own ignorant choosing, but rather, humbly and in a wholly teachable spirit, to seek His thought and Himself in nature, in history, in the vision of Himself He has given to men of old and is still giving to the humble minded today." According to Dean J. G. Lipman, of the College of Agriculture of the State University of New Jersey, "the men of science, in carrying on their work in a spirit of reverence and humility, try to interpret the great book of knowledge in order that the paths of man . . . and the ways of society may be in better keeping with the Divine purpose."

The attitude of the great majority of scientific men today towards religion is well exemplified in a joint statement signed by many such to emphasize their stand. In this list occur the names of Presidents Angell, of Yale; Burton, of the University of Chicago; Osborne, of the American Museum of Natural History; Poteat, of Wake Forest College; and Merriam, of the Carnegie

Institute; also of Professors Coulter, of the University of Chicago; Pupin, of Columbia; Birkhog, of Harvard; Campbell, of Lick Observatory; Conklin, of Princeton; Welch, of Johns Hopkins, all scientists. The statement referred to included the following:

"It is a sublime conception of God which is furnished by science, and one wholly consonant with the highest ideal of religion, when it represents Him as revealing Himself through countless ages in the development of the earth as an abode for man and in the age-long inbreathing of life into its constituent matter, culminating in man, with his spiritual nature and all his godlike powers."

These examples, to which many could be added, clearly indicate the presence among scientists of many whose attitude towards religion presages active and sincere support from their side if active cooperation with theologians could be brought about.

Similar dependence could be placed upon many prominent members of the clergy, Protestant, Roman Catholic and Jewish. Many were included in the joint statement quoted above. Among them were Bishops Manning and Lawrence, of the Episcopal

Church; McConnell, of the Methodist Episcopal Church; Presidents Barbour, of the Rochester Theological Seminary and King, of the Oberlin Theological Seminary; also Professor Davis, of the Princeton Seminary. Bishop Manning declared in a sermon: "There is no reason why religion should have any suspicion or fear of science. There is nothing in the Christian faith that conflicts with the scientific theory of evolution. To many of us this hypothesis seems to make clearer both the glory of the Creator and the naturalness of His revelation of Himself in the incarnation."

Cardinal Haynes added his recognition of the services of science in a recent address. "Tonight," said this distinguished prelate, "we offer a tribute of praise and gratitude to our scientists, to those devoted servants of truth who dedicate their lives to the advancement of human knowledge." Again, "there is a further acknowledgment we must make. Science—real, not false science—discloses to its followers a lofty ideal worthy of the reverence of every man. This ideal is truth—always, everywhere, at any cost. Without selfishness or passion or prejudice, at the

sacrifice of health and wealth, of fame and friendship and life itself; the real scientist worships at truth's altar, realizing, as the church teaches, that there can be no vital conflict or contradiction, between the truth revealed to man by God in the natural order and that made manifest by Him in the supernatural."

Rabbi M. H. Harris, in a sermon, likewise deemed science an elucidative factor. "Far from removing God from the universe, evolution has tremendously advanced our conception of the eternal source behind all. Indeed, divinity becomes a much more exalted conception. A being who could promulgate laws and processes so far reaching, taking eons of time gradually to unfold, must indeed be a being of power and wisdom sublime." Rabbi Jacob Kohn, preaching on "The God of Truth in Science and Religion," held that "true religion, adoring the God of truth, will bid science godspeed in its mighty task of conquering nature through knowledge, for it is convinced that nothing that science can discover within nature can suppress the passion of the human soul for the God of nature."

The three great faiths are thus represented among those who recognize the true rôle of science in its relation to religion. They surely provide the cohesive and uniform power which alone will insure success.

Hope is about all that can be vouchsafed for the present. But any existing fear concerning the influence of science upon religion should be allayed. This I will attempt to do in the following chapters, adding a plea that if their tenets are convincing, everything be done to facilitate for us all, in view of the stupendous questions at stake and the responsibilities involved, compliance with Paul's admonition to the Corinthians (I, 1:10) when they were separating into various sects:

"I beseech you brethren by the name of our Lord Jesus Christ that ye all speak the same thing and that there be no divisions among you."

CHAPTER II.

THE MAIN CAUSES OF ATHEISM.

ERRONEOUS INTERPRETATION OF BIBLICAL TEXT AS A CAUSE OF ATHEISM.

IN the Dayton trial Mr. Darrow was repeatedly referred to as an atheist. But he merely represents a large proportion of unbelievers in this country who refuse to accept illogical tenets as truths. Abusive criticism of their attitude is as unfair as it is futile. Milton may have said of atheism:

“Of such doctrine never was there school
But the heart of the fool,
And no man therein doctor but himself.”

But the great poet was a poor physician. Far better is it to seek the underlying cause of trouble and remove it. In the present connection, it is a disorder accentuated and perpetuated by well-meaning but misled defenders of religion, the literalists.

One can hardly deny that in the Dayton trial, Mr. Bryan (in all kindness to him now that he has passed away) was pitifully outwitted and vanquished. All he could do was to reiterate, we have seen, his literalistic

interpretation of the Biblical text, gaining not a point in the cross-examination. Nor did his defence, published after his death, at all mitigate his defeat. Yet, apparently sterile as it appeared, the picture afforded a salutary lesson: It illustrated the vulnerability of the whole religious edifice—a vulnerability which cannot but have greatly weakened the faith of many believers even though some had been religious virtually from the cradle, while turning aside multitudes of men and women, as well as many youthful readers who otherwise might have welcomed sound teachings.

The destructive influence of the prevailing interpretation of the Biblical text—of Genesis in particular—may probably be best exemplified by the contradictions it imposes where, as in University circles, sound established data are, where possible, the accepted guides. The attendance at universities and colleges has become phenomenal. Within the walls of the great number of such institutions, large and small, the bulk of the future intellectuality of the land is being moulded. Their students are taught to reason out all questions on the basis of truth,

while, if their powers of intuition are brought to bear, they are urged to poise them always on solid facts in order to avoid vagaries or misconceptions.

Outside the university precincts the same students hear or read such statements as the following: Man was created in one day; God blew the breath of life into his nostrils; woman was made from Adam's rib; man fell because Eve, tempted by a serpent, ate a forbidden fruit; Cain, even though there could have been only Adam and Eve left after he had killed Abel, took unto himself a wife and fled as a fugitive on earth, stating that any one who would find him would slay him!

Trained in deductive reasoning at their university or college, they learn outside also that Adam, the image of God, physical and spiritual, suddenly becomes such a scapegrace in Eden that he has to be thrown out and an angel placed at the door to keep him out; Eve, though built of Adam's flesh and therefore "Divine," is still worse than Adam since she was his temptress, and is also expelled. Cain, the eldest son of the "Divine" pair, not only becomes a murderer but a

fratricide! Are such teachings not calculated to inspire disrespect for the Bible to the point of sacrilege?

In all fairness, one cannot but admit that in order to avoid becoming an atheist with such teachings as mental food, one must curb one's mind to the acceptance as true of many statements which, in the light of all experience, are obviously false. Inability to perform such accommodating mental gymnastics accounts for the many avowed atheists and for the multitude of near atheists, men and women, who are practically indifferent to religious thought, and who are increasingly outnumbering the faithful.

The results were well illustrated by Prof. J. A. Leuba,¹ of Bryn Mawr College, after he had questioned the students of nine prominent colleges. Out of one thousand answers received, ninety-seven per cent. of students between eighteen and twenty years gave the following religious status: Unbelief increased from fifteen per cent. in the first year students to forty or forty-five per cent. among the graduates. In his own words: "The

¹J. A. Leuba: "Belief in God and Immortality," 1922, p. 280.

students' statistics show that young people enter college possessed of the beliefs still accepted, more or less perfunctorily, in the average home of the land, and gradually abandon the cardinal Christian beliefs." In truth, it is only a wonder that our students—the hundreds of thousands of men and women who will constitute the intellectual life of the near future—are not all atheists.

Why not rid the Bible, as far as present knowledge will permit, of modes of interpretation justly calculated to fit the relatively childish and illiterate minds of primitive times, but which today only serve to obscure the true sense of the text and conceal its spiritual origin? Once rid of these repellant versions, *the Biblical text will glow as a great white light* and irresistibly draw to it not only previously professed atheists, but also the millions of individuals of both sexes and of all classes who today are quite indifferent to religious teachings.

Worse than literal interpretations of the defective text is the prevailing tendency to consider Genesis, particularly its first few chapters, as consisting of myths or primitive folklore borrowed from Egyptian and

Babylonian crude and often apparently infantile conceptions. Such short-cut solutions are mere makeshifts which, in the light of present day knowledge and the miserable showing that all such derogatory negations have made in the past, particularly when great strides have been recorded in astronomy, electricity, radiology, bacteriology, steam and aërial navigation, etc., only serve to foster disbelief. The Assyrian, Chaldean, and other versions of creation have contributed the bulk of the Mosaic account of creation, but why regard them as mythical?

When the evolutionary psychology of the subject as a whole will have been fathomed to its depths, it may be found that ancient philosophers were wiser than ourselves, because they, more than we, depended upon the inspiration of their spiritual soul—the one close link, as we shall see, between man and his Creator—for truths which today are asserting themselves as such through another form of Divine inspiration and truth: science.

As Schuré¹ said, referring to truth as the religious philosophers of the East and Greece, Krishna, Buddha, Zoroaster, Moses,

¹ Schuré: "Les Grands Initiés," Paris, 1924, p. 11.

Pythagoras and other great stars of the past, saw it: "For them the soul was the only divine reality and the key to the universe. By focussing the will and developing its latent powers, they reached the flowing Light which they named God."

ERRORS OF TRANSLATION FROM THE HEBREW
TEXT WHICH PERVERT THE MEANING
OF GENESIS.

In the present connection, the foundation so to say of the whole religious structure, the creation of man, will alone be considered. Not only are the errors submitted such as to modify our interpretation of the part of Genesis in which this particular subject occurs, but also many teachings in other parts of the Bible. These will eventually be introduced as needed, as they are very numerous.

The importance of these errors cannot be overestimated, for when they will be eliminated, no obstacle will remain to perpetuate the prevailing dissensions among the protestant Christians. When this will have been accomplished by the labors of many (for my own aim is only to blaze a trail, in the hope

that others more competent may take up the work) misleading and disruptive conclusions which distort the Divine intent, will cease to be the foundation of any one's faith, and be replaced by teachings which, judging from their nobler attributes and aims, are at least more worthy of a Divine source. Particularly must the newer interpretations submitted be sound, for they harmonize automatically with the teachings of modern science in directions which otherwise, with the current interpretations of some of the text as basis, would be impossible.

The need of science to elucidate the meaning of the original text explains the inability of the many able Hebrew scholars who have published the various translations to grasp the true sense of the original text. The difficulties of their work were further increased by the fact that ancient Hebrew, in which the text was written, had a very limited vocabulary, one word serving to express many meanings. An additional source of confusion was that, instead of being separated, the words were run together in more or less extensive groups, as we shall see presently.

Especially misleading was the symbolic, figurative, or metaphorical nature of the language used to convey the original interpretation of the text to the primitive people for whom it was intended. The ancient Hebrews, following Egyptian customs, employed three graded forms of speech: 1, the esoteric or sacerdotal, used mainly by priests and scholars in the temples, in which questions of all sorts involving abstract reasoning and philosophy were treated; 2, the colloquial, employed by educated people, a very small proportion of the total population; and 3, the symbolic or metaphorical, previously mentioned, calculated for the masses and illiterate, in which the resources now employed to make children understand, *viz.*, simple examples based on daily experience, very commonplace and even puerile language, etc., were used. In the Garden of Eden, for instance, the trees, the serpent, the fruit, the angels with their flaming swords to guard the way to the tree of life, and other details are purely symbolic, in order to convey, not the creation of man and woman, as it has been taken to mean, but, as we shall see in the sixth chapter, the grave consequences of sin.

It is this symbolic language which misleads the many who today accept the Biblical statements literally simply because they are believed to be "God's own words." But they are not, as will now be shown by a few examples in which the current English text will be compared with the translated Hebrew text, leaving out signs for which there is no English equivalent and also duplications. The errors of translation will then also become evident.

We will take as example first the all-important verse 2:7 in Genesis:

"And the Lord God formed man of the dust of the ground and breathed into his nostrils the breath of life; and man became a living soul."

Translated from the Hebrew textually it reads:

"And formed God the man dust from the ground and breathed into his nostrils his breath-spirit and became the man a soul-spirit."

Why should the word "life" appear in our Bibles when it does not occur in the Hebrew text? In truth, pending more details, the Hebrew word *rouach*, translated into the word "life" as we apply it to any living

thing, does not have this meaning at all. It means "spirit" or "wind," or better, the Hebrew *soulspirit*.

Again, the first time that the name "Adam" appears in the Bible is in Genesis 2:19:

"And out of the ground the Lord God formed every beast of the field and every fowl of the air and brought them unto Adam to see what he would call them and whatsoever Adam called every living creature that was the name thereof."

The Hebrew text, omitting as before all signs, is as follows:

Andformed God from theground every
beastofthefield andevery fowl oftheheavens,
and causedto come unto theman what he-
willcall tohim andall which willcall tohim
theman souloflife, he namehim.

Here again there is some error, for where is "Adam" in the Hebrew text? As the French express it, "he shines by his absence." Now Adam does not mean a special individual at all; in Hebrew *adam* means a man or human being. Why such perversions of the original text in the millions of Bibles extant? Conversely, if the original meaning in the whole process of analysis concerning the so-called "Fall," is used, it will be found to

transform completely its prevailing interpretation and to eliminate all the vulgarity it is thought to imply.

"Adam" as a man being eliminated, the identity of Eve becomes a quandary. That the rib creation of Adam's supposed wife is likewise symbolic will be shown in a special chapter. The verse which first contains the name "Eve" (Genesis 3:20) states:

"And Adam called his wife's name Eve, because she was the mother of all living."

The Hebrew text says, however:

"And called the man name of his wife life-giving for she was mother of all living."

Once more is a common noun transformed into a single individual, "Eve," to create, with the fictitious individual "Adam," a first human pair. But such a pair never existed, and the degrading rôle of "temptress" which the so-called "Eve" is made to play, does not in the least portray our "first mother." The word *eva* or *ièvè* or *havva* which means "life" in Hebrew, or "life-giving" in the spiritual sense, is the same "soulspirit" or "breath" with which, as we shall see, God endows mankind as a whole, through the "mother," the

link, as will be shown later, between God and humanity, through her offspring.

Cain and Abel, the supposed sons of "Adam" and "Eve," form part of a story intended to illustrate figuratively the inflexible severity of the punishment which awaits those who, under any circumstance other than self defence—jealousy being the cause of Cain's fratricide—commit murder.

That the so-called "Fall" itself was not intended to mean the normal relations of man and wife in the production of offspring is further demonstrated by the fact that before the so-called "Fall" is related (Genesis 2:28), God blessed man and woman and bid them to "be fruitful and multiply, fill the earth and subdue it."

These few salient examples, pending many others in succeeding chapters, will suffice to illustrate the erroneous character of the fundamental teachings of Genesis, as interpreted in the translations of the Bible at our disposal today.

That these and other corrections I will submit, though dating back many years, were justified, was well shown by a very timely work which appeared recently by the Rev.

Dr. C. P. Fagnani,¹ Professor of Hebrew in the Union Theological Seminary of New York, who enumerates the large number of translational discrepancies and the incredible teachings to which they give rise. It confirms the meaning of the Hebrew words I had deemed applicable in the illustrations submitted.

The manner in which science sustains the newer interpretations of various parts of Genesis and explains them will be shown, and additional data submitted, in succeeding chapters.

THE "MONKEY" THEORY A MYTH, BUT
EVOLUTION SOUND AND TAUGHT IN
THE BIBLE.

To endow Biblical teachings with their legitimate value, knowledge of the modern trend of evolution is necessary. In truth, as stated by Professor M. N. Metcalf, of Oberlin University, "there is no conflict, no least degree of conflict, between the Bible and the fact of evolution," but the literalist, although he does not realize it, "is trying to shut

¹C. P. Fagnani: "The Beginnings of History According to the Jews," Published by A. and C. Boni, New York, 1925.

men's minds to God's ever growing revelation of Himself to the human soul."

Evolution (from the Latin *evolvere*, to evolve or unroll), reduced to its simplest expression, means but a process of development or unfolding. In plants and animals, it starts, beginning in the seed, grain, spore, cell, etc., progressive modifications of all parts of the developing organism, until the adult state is attained. A man who denies evolution, if consistent, should refuse to believe that he has himself evolved from a fertilized ovum and developed from infancy to manhood, that an acorn can develop into an oak, that an apple seed, when planted, will cause the growth of an apple tree, etc. The progressive transformations of a caterpillar into a chrysalis which in time becomes a butterfly, and also the familiar conversion of a tadpole into a frog, likewise illustrate what evolution means. Millions of other facts demonstrate that it is a commonplace function which manifests itself in every department of nature.

Everything that grows and in doing so becomes more complex in order to reach its final state of development, is undergoing evo-

lution. Our solar system is an evolutionary product of what, at first, appears as a mist in space, a nebula. Our earth, a part of this solar system, itself undergoes evolution until it has reached its ultimate object, the production of life with man as its crowning effort—man, who unlike any other living being in nature, is endowed with a brain capable of grasping the idea of a Divinity and of the Infinite.

The manner in which evolution occurs, the resources through which nature insures and perpetuates the process, constitute a special problem, and it is in this specific connection that various “theories” of evolution have been propounded.

These theories did not begin with Darwin. Centuries before the Christian era, Empedocles (about 450 B.C.), a Sicilian physician and physicist, taught what, in some particulars, science has since shown to be true, as we shall see in the fourth and fifth chapters, *viz.*, that a single element pervades all nature, the plants and animals, including man, representing but links in a continuous chain. No clearer explanation of the fundamental principle of evolution has been published

since and the title of "father of the evolution idea" bestowed upon Empedocles by some modern scientists is justified.

Nor is the idea that man belongs to the animal kingdom modern, for this relationship dominated Egyptian lore long before the fourth Egyptian dynasty, which dates back to 4000 B.C. Even this is a relatively recent period, for it was during this dynasty that the typical Sphinx with its human head, its bull torso, its lion claws, and its folded eagle wings, typifying the animal nature of man, was dug out of the Egyptian sands, according to Schuré.¹ Darwin's labors have sustained this solidarity or oneness of man with all other animals, already visualized, we have seen, by Empedocles.

The first great modern evolutionist was the French naturalist de Lamarck (1744-1829) whose views, as we shall see later, are more compatible with those of our day than were Darwin's. He was a firm believer in the principle of use and disuse as a factor of development, and in the principle of Divine creation of primordial forms, though as a starting factor only, the forces of nature sup-

¹ Schuré: "Les Grands Initiés," Paris, 1924, p. 117.

plemented by the developmental influence of use doing the rest.

Of the theories of the great naturalist Charles Darwin (1809-1882), the dominant one was that of *natural selection*. This was based on his belief that variations or changes were gradually developed in living things, plants and animals, during the millions of years required for the evolutionary process, and that through these variations, plants or animals could eventually become transformed into new species. As is well known, new varieties of flowers, fruit, etc., can be created artificially, that is to say by "artificial selection." Darwin concluded that this could also occur normally, *e.g.*, automatically, in nature as a source of improvement. Hence the name "natural selection" he gave this theory.

The method adopted by nature to carry on this process, according to Darwin, was to create a large surplus of plants and animals and thus to provoke strife between them, for subsistence. This suggested his *struggle for existence* theory, the purpose of which, as expressed by Herbert Spencer, was to insure the *survival of the fittest*. Under these

conditions, whether due to greater physical strength, superior intelligence or other resources, the best or the fittest would alone survive.

Time, however, has not sustained these interlocked theories. To understand the reasons for this fact, however, some idea of the meaning of the word "species" in the zoological sense is necessary. Darwin¹ himself wrote in this connection that, "no definition has satisfied naturalists; yet every naturalist knows vaguely what he means when he speaks of a species. Generally the term includes the unknown element of a distinct act of creation." The term is, however, often confused with that of "varieties" for, as Darwin² states, "few well marked and well known varieties can be named which have not been ranked as species by at least some competent judges."

A few examples of the meaning of "species" will serve to illustrate its application. The house cat constitutes a species, the *Felis domestica*; the lion, however, is also a cat, but of another species, *Felis leo*; the tiger,

¹ Darwin: "Origin of Species," 6th Ed., p. 39.

² Darwin: *Loc. cit.*, p. 43.

still another cat, belongs to a third species, *Felis tigris*, etc. The term "Felis" in all, however, indicates that they collectively belong to the genus *Felis*, forming a family, the *Felidæ*, composed of meat eaters, the *Carnivora*, etc. The family dog is the *Canis familiaris* as to species, but another kind of dog, the wolf, belongs to the *Canis lupus* species, although both belong to one family, the *Canidæ*. The apes also constitute a family, the *Simiudæ*, which include several species, the orang-outang (*Simia Satyrus*), the gorilla (*Simia gorilla*), the chimpanzee (*Simia antropopithecus*), etc. Man, however, does not belong to that family; his own family, the *Hominidæ*, includes but a single species (*Homo sapiens*) which includes all humanity, all races of man.

Two important facts suggest themselves in this connection. One is that the species is always the last of the subdivisions; the other is that despite this fact, each species is specific as far as reproduction of its kind is concerned. Thus, although the tiger and the lion belong to the same family, the *Felidæ*, a tiger will never beget a lion or *vice versa*.

While there is no doubt that, as we shall see, present day animals, including man, are evolutionary and improved products of primitive animals of the same species, this knowledge is not due to Darwin's theories; it has been worked out by other scientists, the geologists, paleontologists and embryologists mainly, as we shall see. Darwin's own doctrine of descent, *e.g.*, that new and different species could be evolved from other species, has steadily lost ground. Darwin¹ himself, four years after the publication of his "Origin of Species," wrote to Bentham: "When we descend to details we can prove that no one species has changed" "Nor can we prove that the supposed changes are beneficial, which is the groundwork of the theory." This honest and praiseworthy admission has not been contradicted by painstaking investigations in all directions, and now, sixty-six years after Darwin's "natural selection" theory was brought out, has been steadily losing ground as a fundamental doctrine. As a distinguished British scientist, Professor Bateson, said recently in an

¹ Darwin: cited by L. T. More: "The Dogma of Evolution," Princeton, 1925, p. 195.

address in Canada: "Our doubts are not as to the reality or truth of evolution, but as to the origin of species."

Some of the objections to natural selection as an explanation of the origin of species were as follows, according to Professor J. M. Coulter,¹ of the University of Chicago: "It has been claimed that natural selection cannot bridge the gap between one species and another. It deals only with small variations that fluctuate from generation to generation. Although these may be increased in various directions by continuous selection, they have never been known to cross the boundary line of species."

Nor did the "fittest" forms alone survive, while many unfit forms did so. Yet, the "struggle for existence" shows itself in many directions, but it is not manifest in the direction vouchsafed by Darwin, *e.g.*, to improve the race or plant-life. Its purpose is to render the earth habitable, for it is evident that if some sort of mutual destruction, such as the consumption of plant-life by herbivorous animals and others and the destruction

¹ J. M. Coulter: "Evolution, Heredity and Eugenics," Bloomington, Ills., 1916, p. 47.

of insects, rodents and smaller animals by larger ones both in the sea and on land did not occur, the countless numbers of plants and animals being constantly produced would soon overwhelm the whole earth. All this, however, was known long before the doctrine of the "survival of the fittest" was formulated.

The prevailing teaching that "both man and the apes are descended from a common ancestor from which both lines have developed" does not convey an established fact; *it is purely inferential*. Great similarity of structure, anatomical, physiological, pathological, etc., are inadequate to sustain even a kinship between the apes and man, since the great majority of the points of resemblance can also be discerned in many other animals.

As summarized by Professor J. Arthur Thomson: "The *theory* is that he [man] emerged *probably* as a mutation or saltatory variant from a stock common to the anthro-poid apes and to him." A "theory" in the present connection does not warrant the "common stock" or "stem" *assertion*, particularly in view of the fact that it has done

great harm in many directions where religion and morality were concerned.

Especially should this be borne in mind in view of the statement of one of our leading comparative anatomists, Professor H. F. Osborn,¹ of Columbia University, that: "Between the appearance of [Darwin's] *Origin of Species* in 1859 and the present time, there have been great waves of faith in one explanation and then in another; each of these waves of confidence has ended in disappointment."

How does this affect the so-called "monkey theory of human descent"?

It is obvious that if the apes, chimpanzees, gorillas and other "monkeys" belong to one family, the *Simiidae*, while man belongs to another family, the *Hominidae* with but one species, its own, that Darwin's theory having failed to bridge the gap between any two different species, there can be no ancestral connection, primordial or evolutionary between "monkey" and man.

The present situation of the question is graphically described by Professor J. Arthur

¹ H. F. Osborn: "The Origin and Evolution of Life," London, 1918, p. 9.

Thomson,¹ of the University of Aberdeen. While man, according to this naturalist, "is zoologically affiliated with the highest order of mammals to which apes and monkeys belong" "the ape voyage has been in one direction, man's in another, but the vessels sailed from the same port; their keels were laid down in the same shipbuilding yard." Evidently, then, different keels meant different vessels and no one vessel could be a product of any other. This means that several vessels named respectively, gibbon, chimpanzee, orang, gorilla and man were built in the same yard as *separate* vessels. They all left port to reach a goal which but one of them reached: *man*—though *after undergoing slight variations or physical changes each succeeding generation*.

Briefly, man, in the light of modern science, is the product of a sifting out process in which monkeys, small and large, failed to make good, while man, once animal-like, a "humanoid," gradually evolved into the present-day human being. He stands alone as such, absolutely distinct from the "monkey."

¹ J. Arthur Thomson: "Concerning Evolution," New Haven, Conn., 1925, p. 196.

"Entirely apart from the human family," wrote recently Professor Osborn,¹ "is the *Simiidae* (Latin, *simia*, ape), including the living and extinct anthropoid apes, the gorilla, the chimpanzee, the orang and the gibbon. *These animals*" "are totally different from the human family from its earliest history" "Thus," adds Dr. Osborn, "the entire monkey-ape theory of human descent" "is a pure fiction which has been entirely set aside by modern anatomical research. All these animals ape or imitate man," but "none of them is anywhere near the true line of human ascent."

As Sir Arthur Keith,² another leading authority, also states: "All who have made a study of the human body are agreed that we must seek for man's origin in an ape-like ancestor." This means resemblance only, a parental connection having never been demonstrated. [All the italics are my own.]

Even the word "affiliated" in no way indicates a connection with any lower order of animal. It simply means that the anatomical construction of the body of man resembles

¹ Osborn: Original article in the New York Times, July 12, 1925.

² Sir Arthur Keith: "Antiquity of Man," 1925, vol. ii, p. 730.

greatly that of the higher apes. This, however, is but a commonplace resource of nature, *e.g.*, that of using throughout the entire animal scale whatever mechanism will, in any animal, have been found to best fill the needs of a given function. The word "*affiliated*," therefore, means *only a convenient expression for scientists*, extremely useful for purposes of study, but *in no way indicating a parental connection, near or remote, with the apes*. This is further emphasized by the many anatomical differences between them illustrated under the next heading.

A clear recognition of the independence of man from the ape family will prevent in the future, it is earnestly hoped, *the deplorable mistakes, so hurtful to the cause of religion*, which Mr. Bryan and his followers, including the States which have passed anti-evolution laws, have made concerning the whole question. They have attacked the shadow of an undemonstrable theory of evolution; they have advertised the "monkey descent theory" which most scientists had already cast aside; they have assailed the scientists themselves, not realizing that they were injuring and

counteracting the influence of friends who, by seeking the truth, were devoting their life's work, as Professor Metcalf so well said, "to God's evergrowing revelation of Himself to the human soul."

Great injustice is also being done to Mr. Darwin in the "anti-evolution" campaign, so ill advised in all its aspects. Indeed, atheism was certainly not an attribute of the moral structure of a man who could write as Darwin¹ did in 1859, referring to the main purpose or aims of his labors, the production of higher types of animals, including man: "There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that, while this planet has gone circling on according to the fixed law of gravity, from so simple a beginning, endless forms most beautiful and most wonderful have been, and are being evolved."

Finally, it is not because the main conceptions of Darwin have not been sustained by science that his labors have not been immensely fruitful indirectly. Every scientific man looks upon him as one of the greatest

¹ Darwin: "Origin of Species," 6th Ed., p. 505.

naturalists that ever lived. In succeeding chapters we shall see—though mainly as a result of the vast amount of investigation it has provoked—one of the results of his labors, *viz.*, that of placing physical man where he truly belongs, thus making it possible for us all to realize that *there exists something in mankind, far greater than the physical self.*

THE ANIMAL BODY OF MAN NOT THE
IMAGE OF GOD.

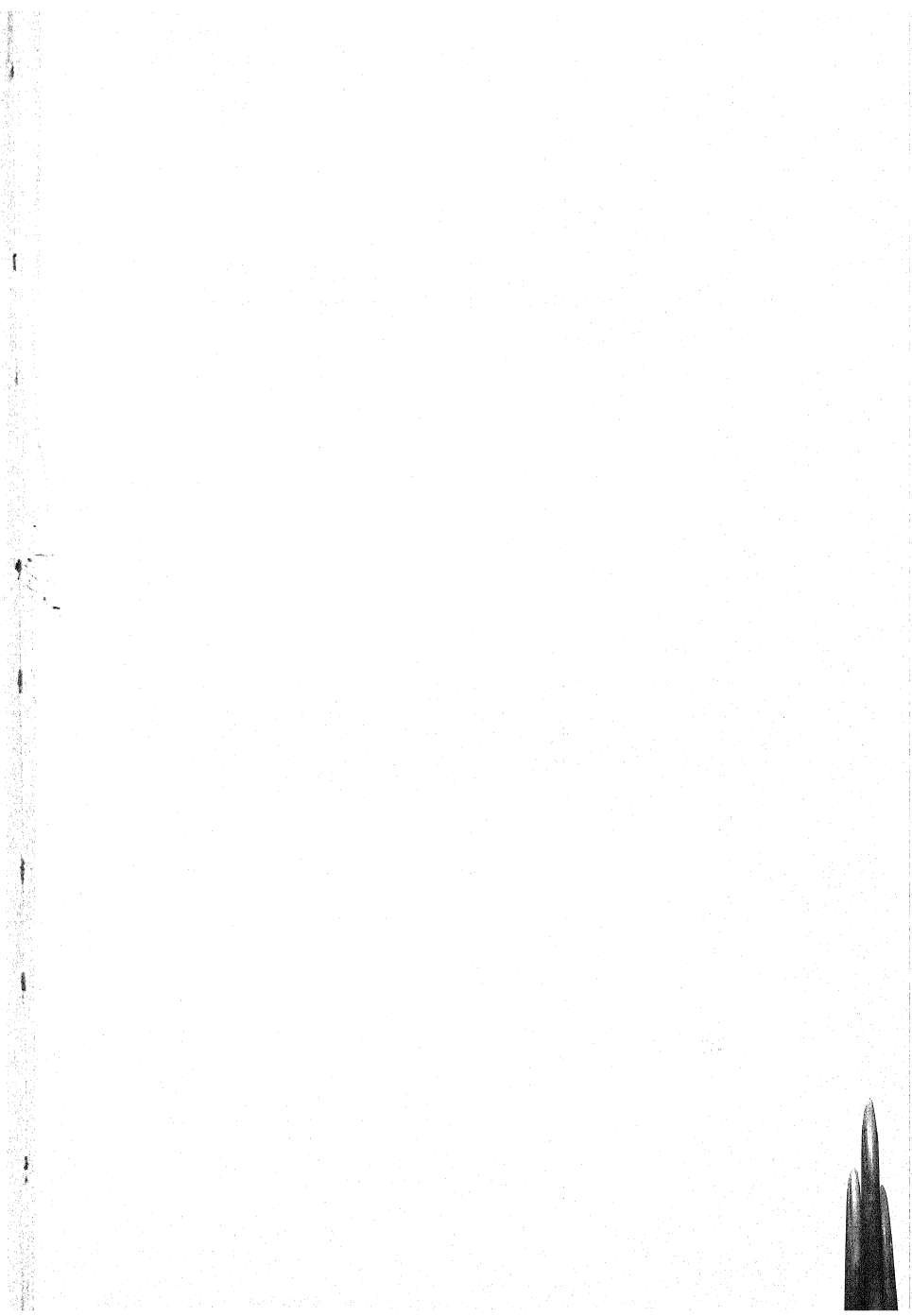
Referring to the million years taken up by the sifting out process which finally enabled man to reach his high station among animals, Professor J. Arthur Thomson¹ characterizes the statement that “man sprang from a monkey” as “an unutterable vulgarity.” He also says, however,² that “what Darwin proved as far as proof is possible, was man’s solidarity with the rest of creation.” In other words, man’s physical self is one with all other animals. There can be no doubt on that score; and as we shall

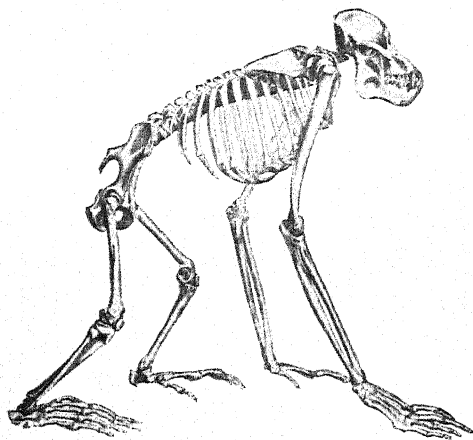
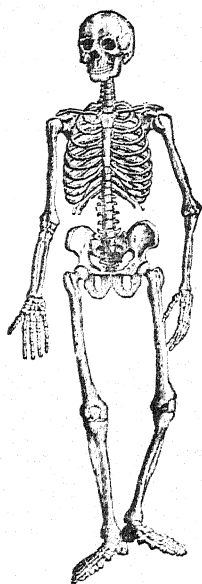
¹ J. Arthur Thomson: *Loc. cit.*, p. 211.

² *Ibid*: *Loc. cit.*, p. 196.

see, this harmonizes perfectly with Biblical teachings.

The identity of man as a chosen individual in nature from the very start, complies with the universal law that a given seed will produce only the kind of living organism from which it was derived. A "monkey" origin would have broken this law. Again, a feature too often overlooked is that man's divergences from the ape are far greater than those met with in many plants in which, though they resemble greatly one another, this law is rigidly carried out. Thus, as compared to any of the apes, man assumes perfectly the erect posture. He is distinguished also by his greater spinal flexibility, the perfect adaptability of his lower limbs to the support of his body, the freedom and full development of the thumb which renders him capable of doing most intricate work, mechanical and artistic; the relatively greater length of the lower limbs as compared to the upper, his small canine teeth, and, of cardinal importance, his high forehead with reduced brow-ridges, with large cranial capacity for a relatively larger and richly convoluted brain and incomparably





CONTRAST BETWEEN THE SKELETONS OF
MAN AND OF THE ORANG, ONE OF THE HIGHER
APES.

higher intellectual powers. The contrast is shown in the annexed illustration.

This is usually accounted for by the statement that man assumes the erect posture after passing through the different ones peculiar to the various apes from the lemur or gibbon up. But this is again only an assumption calculated to fit in with Darwin's theory. The boundary line of species having never been crossed, there can be no skeletal scale of development from the ape to man, *Homo sapiens* possessing his own family tree.

Comparing these departures between man and the ape with the uniformity which characterizes each of the multitude of plants, however low, as regards the specific reproductive property of its seed, it will become evident that in such highly developed animals as the apes and man, each should also have its own original and reproductive cell. Every single one of the many varieties of oak, for instance, has its own special acorn, and each of these will cause but one, its own specific kind of oak, to grow. This applies also, to name but a few of all the trees and plants in which this principle prevails, to the cones

of the evergreens, the hemlock, fir, larch, spruce, etc., which differ only in that their leaves are somewhat dissimilar in shape; each cone will develop into its own special evergreen and none other. Inasmuch as there is no departure (unless artificial procedures, grafting, etc., are resorted to) from this law, it cannot but apply also to the highest and most complex living organisms, the mammals. In view of this fact and the collapse of the "monkey theory of human descent," it seems clear that *each of the apes develops from its own specific reproductive cell, and that this applies also to man.*

The "stem" idea, in virtue of which the genealogy of man and all apes is thought to be represented by a tree the stem of which contains the ancestral lines of all these anthropoids, is also misleading, in the light of the foregoing conclusions. It is no more justified than would be the statement that all the varieties of oak, maple, locust, poplar, willow, etc., should arise from a common tree stem merely because they show many morphological features in common. It is the seed, the reproductive cell, from my viewpoint, which decides this question and

each kind of living thing must be treated as a specific unit.

This interpretation also confirms Biblical teachings. Thus, in Genesis 1:11, it is stated:

“And God said: Let the earth bring forth grass, the herb yielding seed, and the fruit tree yielding fruit *after his kind whose seed is in itself*, upon the earth.”

The same emphasis is laid upon the specific individuality of each animal in Genesis 1:24, when God says:

“Let the earth bring forth the living creature *after his kind*, cattle and creeping thing and beast of the earth *after his kind*.”

The earth, in truth, is rather disorderly and promiscuous in bringing forth plant life “each after his own kind,” unless it be under cultivation. Climatic conditions being equal, the flora of a given country is better illustrated by a field studded here and there with various and different flowers, among many kinds of grasses and several kinds of trees, than in a botanical text-book in which—for

very good reasons—the flora of the region is carefully classified. This applies also to animals, the fauna, of a country. The line of demarcation between plants and animals, in fact, is hardly perceptible where they meet, the protozoa, the first cells formed “in the beginning” in water, being prototypes of many formed ever since. But as the process of development progresses, plants and animals, including man, do not develop from groups of cells merged together, but each from its own original nest, as it were. The boundary line of species having never been crossed *man cannot be considered as the product of a compound cell capable also of producing apes, but of his own specific cell.* In other words, while man is an animal, he stands alone in nature as the product of a *human* primordial cell.

The process of evolution from this protozoan or simple cell is shown by the science of Embryology, which reveals the pedigree of an embryo, or fertilized germ (in man the product of conception up to the fourth month) by recapitulating the whole history of its ancestry. Hinted at by the great naturalist, Agassiz, this fact was clearly

enunciated by Prof. F. Müller in 1863. This ancestral history consists of various stages, each representing one step nearer the finished form. In the mammals, to which man belongs, each step illustrates the adoption of organs or mechanisms used previously in lower forms.

Darwin tried to explain this by variations which, having first appeared in one parent, tended to reappear at the same age in his offspring. But this view has not been sustained, and no final solution of the problem has yet been vouchsafed.

From my viewpoint, however, it looks as if nature built up successively various functional mechanisms, and added one to the other successively, each aggregate of steps forming a new animal until the most efficient, man, had been built up. This may be exemplified by the evolution of two related functions, the circulation and respiration. Thus, in the human embryo, we can readily recognize the first great step which occurred after the original or primordial cell has begun to develop in the terrestrial seas. It becomes a minute fish, as far as its breathing apparatus and circulation of its blood are

concerned. Now, man carries this earliest transformation all through life. But instead of living in sea water, he carries this water with its salt, diluted and chemically adjusted to his needs, as blood in his blood-vessels. In other words, man is a fish who carries his sea-water within him, a fact which applies to all other animals.

But how did the transition from a water animal to a land animal occur?

Every one is familiar with amphibious animals. Some, the Mexican axolotl, for instance, are able to breathe in water through gills and on land through lungs, and when kept on land, were found to live on normally. Hence the fact that the human embryo, repeating the process, develops lungs, after which the gills disappear. This does not occur invariably, however, for we sometimes meet in our patients "gill clefts" left over from the patient's embryonic life, which had failed to disappear.

Another adaptation to man's use (as well as in all other higher animals), which is initiated in fishes, is that of pulmonary and tissue respiration. Thus, many fishes possess in regions of the body which in high animals

are occupied by the lungs, a structure known as the "air bladder" which is now regarded as an organ of flotation. As one of its names indicates, it is filled with air, which, as is well known, contains oxygen.

A surprising feature of modern knowledge is that the chief fundamental function of the body, respiration, has never been explained except by a doctrine, that of "diffusion," which is as erroneous as it is misleading. As an editorial writer¹ (a physiologist) wrote a few years ago: "An answer to the question as to how the all-important oxidations in the body are brought about is almost as obscure today as it was a hundred years ago." My own investigations, judging from the considerable supporting evidence published by other investigators, seem to me to have solved this problem.

The walls of the elongated sac known as the air bladder in various fishes, are lined internally, in some elevated areas of this structure, with a membrane very similar, in vascularity, to that of the human pulmonary air cell. That of the air bladder is in reality

¹ Editorial in the Journal of the American Medical Association, 1919, vol. lxxii, p. 1697.

but a large air-cell itself, and not intended as an "organ of flotation," but, in keeping with the views of some zoologists, as an *emergency respiratory sac* which enables certain fishes to breathe in stagnant waters, or at great depths where the supply of free oxygen in the water has become insufficient for respiration through the gills. Like the lungs, it develops from the pharynx, and admits air from the latter through a small duct. In an asphyxiated fish, the oxygen in the air of the bladder which usually is about twenty-five per cent., entirely disappears and is replaced by carbonic acid and nitrogen.

How could the oxygen in the air of the bladder be taken up by the blood, however? Personal labors have shown that the absorption of oxygen from the air in this air bladder was due to an internal secretion supplied by organs which correspond to the "adrenals" (overlying the kidneys) in man. These organs secrete into the blood of the cardinal vein of fishes a substance which enables this blood to take up oxygen from the air and to carry it through the arteries to the animal's tissues. In man, the only difference is that while the gills have disap-

peared, the oxygen-absorbing spaces of the air bladder have become divided into millions of minute air cells in the lungs, which likewise receive the secretion of the adrenals through the inferior vena cava and the heart. The human respiratory system, therefore, is a development of that of fishes with the secretion of the adrenals as chemical respiratory agent.

This interpretation of respiration, formulated by myself in 1903, and since sustained by the labors of many other investigators, explains many heretofore obscure phenomena.¹

These various examples will suffice to show that man's evolution from his original cell in primordial seas, includes the adoption of organs similar to those of various other animals. The ape, whose body resembles most closely that of man, does likewise in many intricate particulars. This does not mean, however, that man descends or ascends

¹ Biologists who may be interested in the functions of the human adrenals in respiration will find the subject summarized in an article by myself published in the medical journal "Endocrinology," November-December, 1925, or in either of the ten editions of my work (two volumes) on "The Internal Secretions and the Principles of Medicine," published by the F. A. Davis Co., Philadelphia.



from the ape; it only means that nature used one general system to build up all higher animals and that man and the ape, being the highest animals, were products of the same process. The salient fact, however, is that *man is, without doubt, himself developed as an animal.*

Coming now to additional evidence to this effect, much is afforded by geology and paleontology.

After a very long line of generations (which includes the appearance of "humanoids" or "cave men," not far above beasts), the attributes of the present day man began to appear. Prominent among these are skulls which are typically human, and implements which could only have been used by man, though found in layers of soil known to be from 45,000 to 500,000 years old. In the latter layers, for instance, corresponding with the Pliocene age, many tools, weapons, flints, etc., were found which no animal but man could have fashioned. Moreover, a workshop was discovered in which fire had been used. Not only did the shop conclusively point to the presence of man, but the fire-building process that it indicated,

likewise. In cold regions, of Africa for instance, a fire left by hunters will be greatly enjoyed by apes, but never has one of these animals, the nearest to man, been known to prolong the fire by adding wood or brush to it, even when plenty is right at hand.

The conformation of fossil human skulls was found gradually to change as the layers of soil approached the surface, in that the brow, chin, size of the skull, etc., resembled increasingly that of the average man of our day. A distinct process of development was obvious at every stage. The Piltdown man of 500,000 years ago, with his flat brow, absent chin and limited brain cavity indicating a correspondingly limited brain power, was, for instance, a very different individual from the Cro-Magnon man of 25,000 years ago with his prominent chin, full brow and large brain.

When we consider that, in the opinion of scientists, the age of the earth approximates a billion years and that life in its various forms began at least fifty million years ago, man in his organized state is relatively a newcomer, the earliest signs of his presence having been discovered in Foxhall, England, in

rocks over a million years old. Even these contained crude flint implements, which could only have been used by hands capable of clipping, a power which the highest apes do not possess, their thumbs being entirely too short, while the degree of intelligence required to manufacture or use the implements was quite beyond that of any living or extinct ape. While man appeared late, we must not lose sight of the fact that his preliminary development to that complex state also occupied a long period, so that the cell from which he obtained his start, just as an original acorn started the oak, must have taken several millions of years more.

An important query in this connection is whether the earliest cells which evolved plants or animals began doing so only when the earth had been sufficiently evolved or developed to sustain life?

The answer to this question is too often overlooked. Dr. C. B. Davenport,¹ director of the department of genetics of the Carnegie Institute, of Washington, D. C.,—who, by the way, justly states that the biologist believes “the word of God” to be “the testi-

¹ C. B. Davenport: *Scientific Monthly*, August, 1925.

mony of nature,"—writes in this connection: "All kinds of organisms were not made at the beginning of the world. There are now thousands of forms of animals and plants that reproduce their kind which did not exist a century ago. Within the last ten years there have been produced scores of forms of the banana fly never before seen by the eye of man."

Again, those of us who have studied intimately the processes of nature are familiar with the economy and precision with which apparently divergent functions are carried out. The process of digestion in all animals, including man, is performed, for instance, by means of enzymes as active agents. As personal labors have shown, this same digestive process serves in the blood and tissue cells to carry on the vital process and immunity. Bacteria are digested anywhere in the body in the same way that food is digested in the alimentary tract. The same uniformity is evident in the anatomical structure of all animals. Muscles, nerves, bones, blood, etc., are practically similar in all of them, including man. When it comes to the anthropoid, or man-like apes, the resemblance in all these

particulars is striking, simply because structurally and chemically, they are the nearest to man.

Professor W. W. Keen,¹ the Nestor of American Surgery, in his book further emphasizes the remarkable physical resemblance between the higher animals and man, bringing in besides the similarities mentioned above many others such as the effects of operations on the brain, ancestral vestiges, identical diseases, embryonic deformities, heredity, the influence of emotions, sexuality, etc.—all proving conclusively that the human body is but an animal body, with all its vulnerabilities to defects, diseases, destruction and decay.

Does this tend to invalidate Biblical teachings? The opposite is emphatically the case. It serves to demonstrate that *science, far from antagonizing the Bible, fully sustains the great truths concerning the physical nature of man that it contains*. Man attributes to his animal body the supreme prerogative of being the "image of God," but science proves definitely to him that this is a gross error, quite in accord with what the

¹ W. W. Keen: "I Believe in God and Evolution," 1922.

apostle Paul (Romans 1:22 and 23) told the Romans, referring to their self-idolatry:

“Professing themselves to be wise, they become fools” and “changed the glory of the uncorruptible God into an image made like to corruptible man.”

Science, moreover, as we shall see presently, fulfills another great mission when thus proving the physical nature of the human body. It brings out of the shadow into which worldly interests have practically relegated it, man's distinguishing feature above all beasts, *his spiritual body, for which the physical body serves as a temporary abode.*

CHAPTER III.

EVOLUTION AS PROOF THAT MAN IS DIVINE.

MAN, OF ALL ANIMALS, ALONE ENDOWED
WITH A DIVINE SPIRIT.

IN the light of the data submitted in the foregoing chapter, the following remarks by Prof. J. T. Scopes, of the Rhea County High School of Dayton, Tenn., at the time of his trial, were plainly justified: "As an engineer and chemist I can say that chemistry, geology and biology are all pathways to God, and the only book that God Almighty ever wrote is read through the spectacles of geology and biology, and on every page of God's only book is the story of evolution. I have never met a true student of science who was not a very religious man.

"Bryan believes that to accept evolution and permit it to be taught in the schools will cause a moral collapse of the young people of the country. On the contrary, he would cause a moral collapse by not permitting the truth to be taught."

We have seen that all branches of biology sustain the evolution of man from a primary cell, which initiates the purely physical nature of his body. What evolution did, then, irrespective of any Darwinian interpretation, is to prove that the body is a product of the soil—quite in keeping with Genesis 2:7, which says:

“And the Lord God formed man of the dust of the ground.”

In proving the correctness of Biblical teaching in this connection, however, the scientific study of evolution has done more: It has placed on an absolutely solid foundation the fact that we must not confuse the physical or clay-formed human body with the Divine self it contains—that which the apostle Paul, in answer to the question: “How are the dead raised and with what manner of body do they come?” said (I Corinthians 15:44):

“There is a natural body and there is a spiritual body.”

By conclusively demonstrating the lowliness of our physical body, thus distinguishing it from the spiritual body, science also

confirms Paul's teaching (I Corinthians 15:36):

"That which thou sowest is not quickened."

Both Paul and science thus affirm that the seed of man, his physical self, belongs to earth, and as a product of the clay is not itself a spiritual entity. This is quite in keeping with Elihu's (Job 34:15) statement that

"Man shall turn again into dust."

It might be objected, however, that all this is contradicted by the verse (Genesis 2:7):

"And the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life, and man became a living soul."

the word "life" here being taken in its literal sense, *i.e.*, that meant when we speak of the life of the body. But, as previously stated, the Hebrew word *rouach* does not mean "life," but "spirit." What the verse means, therefore, is that *God made the body of man out of the soil, but endowed it with a breath of His Own Spirit or living soul.*

Science, by demonstrating that man, as a purely physical animal, can only serve as

an abode of the Divine Spirit in him, also sustains Paul's statement in II Corinthians (6:16) that:

"Ye are the *temple* of the living God."

Human vanity, we have seen, receives somewhat of a shock in this connection. Dr. Osborn, in an article previously quoted, recalls the great French anatomist Testut's comparison of the anatomy of man as regards its limitations, with the admonitions of a slave employed to remind each Roman Emperor that he was "but a man and not a god." Similarly, science keeps on repeating: "You are only a man, your daily and hourly existence depends on nervous, muscular, glandular and skeletal systems which were designed *not in a few hours* but in many millions of years. Your own cellular structure of development from germ and embryo to manhood is a syncopated epitome of your past history." In other words, man should not apply to his physical body, built out of dust and which returns to dust, the verse (Genesis 1:26):

"And God said, let us make man in our image, after our likeness."

A little reflection will suffice to suggest that its tendencies to depravity and crime and to a multitude of diseases, render the physical body anything but a divine organism such as those who speak of an "anthropomorphic God" would have it. Indeed, as stated in Romans (1:22 and 23), we have seen, the Bible speaks very deprecatingly of those who "change the glory of the uncorruptible God into an image made like to corruptible man."

This, however, does not prevent man from being the "temple of the Living God," or in other words, a terrestrial organism capable of housing a "spiritual body." Indeed, it is in virtue of this special endowment that men in general, in keeping with the second part of the verse in Genesis (1:26):

"Have dominion over the fish of the sea and over the fowl of the air and over the cattle and over all the earth, and over every creeping thing that creepeth upon the earth."

Proof of his superiority is self evident on all sides. It is because, even though developed and built on lines similar to those of lower animals and corruptible like them,

he embodies this spark of the Divine self that, unlike the lower animals, *man is himself a creator*. Hence, the marvelous inventive powers, pure expressions of his spiritual genius and the special development of his brain, which he shows in all directions: science, art, literature, etc. It is when the mental powers of such men as Pasteur, Lister, Shakespeare, Victor Hugo, Goethe, Schiller, Raphael, Michel Angelo, Lavoisier, Laplace, Newton, Emerson, Edison and many others are compared with the greatest achievements of any lower animal—even the highest, the ape, elephant, dog, etc.—that it is possible fully to realize what *the only spiritualized animal*, the highest of all, represents on earth.

The never-found “missing link” becomes an absurdity under these conditions. It will continue to be “missing” now that the gap between man and monkey has been found unbridgeable.

During the Scopes trial, Judge J. T. Raulston had occasion, very appropriately, to propound a series of questions to the attorneys of the defense, none of which could have been met with the Darwinian theory as

standard. This theory once eliminated, and each species, including man, preserving its autonomy, all can be satisfactorily answered on the basis of perfect harmony between religion and science. Both the questions and answers are submitted here in the hope that they will more clearly than by any other means define the newer relations between these two greatest human assets. In Judge Raulston's words:

"First. When you insist man descended from a lower order of animals, have you evidence to support this theory sufficiently definite to justify the expectation that intelligent people will accept it and adopt this theory?"

Man in the light of modern labors, does not descend from a lower order of animals; his biological genealogy is strictly human from the initial cell to his birth, even though functional resources utilized in his body are also used by Nature in other animals. Again evolution as herein presented clearly sustains Biblical teachings when the errors of translation in Genesis are corrected.

"Second. Have you any evidence that this theory can in any aspect of life be bene-

ficial to man? Is not the contrary true—that it tends to degrade man?”

It is precisely because the pleadings of the Divine Spirit are cast aside increasingly that the moral decay summarized in the first chapter of this book can proceed increasingly each year in the United States. The interpretation of evolution submitted elevates man by giving his Divine Spirit a degree of prominence which he has too freely given to his body. It will be of great benefit to him to realize this fact, for he will be more vulnerable to the promptings of his conscience, the spiritual beacon of his soul, and to the teachings of his church whether Christian or Jewish, God being the Father of us all.

“Third. Doesn’t the theory of evolution seek to destroy the doctrine of the inspiration of the Bible”?

We have seen that precisely the opposite will be the case with the modern doctrine of evolution as standard. A greater recognition of the Divine Spirit in man will normally accentuate belief in the Divine inspiration for which the Bible is the intermediary and more clearly convey its lofty teachings.

"Fourth. Doesn't it purpose to eliminate the divinity of Christ"?

Even the Darwinian theory did not, as framed by its author, tend to eliminate the divinity of Christ. The newer conception of evolution, however, by restricting to man alone the possession of a Divine Spirit, by confirming the origin of his body from the dust, indirectly sustains the divinity of Christ.

"Fifth. Doesn't it deny the resurrection?"

Evolution, bearing as it does only on the physical side of the body, cannot deny resurrection, but the concordance of the newer interpretation of evolution summarized in the foregoing pages with Biblical teachings would tend to suggest concordance as regards resurrection rather than denial.

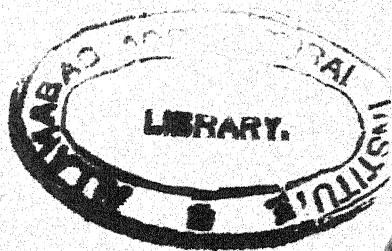
"Sixth. If the theory of evolution destroys man's faith in the integrity of the Bible, in the divinity of Christ and the resurrection, doesn't it thereby undermine the Christian religion?"

The perfect concordance of the newer interpretation submitted with Biblical teachings will only serve to increase faith in the Bible. We have just seen that this can only re-

flect favorably on the Christian doctrine. Instead of undermining the Christian religion, it will tend to fortify its foundation.

"Seventh. Can civilization survive the destruction of the Christian religion?"

This country at the present time is giving an example of what the destruction of Christianity would mean. It leads all other civilized nations in crime, the main cause being loss of influence of religion, partly owing to internal quarrels in various churches. Other major reasons have been reviewed in the second chapter. Disbelief has also been fostered by the Darwinian doctrine of evolution, though only because its tenets have been perpetuated by laymen who failed to realize that scientists no longer supported it. The trend of the prevailing interpretation of evolution outlined herein, far from tending towards destroying Christianity is strongly to sustain its teachings by, as will be further demonstrated in succeeding chapters, fostering belief in God, the Father of Christ.



MAN'S DIVINE SPIRIT AS THE SOURCE OF
HIS SUPERIOR INTELLECT AND OF
NOBLER INSTINCTS.

The general heading of the present chapter consists of the phrase: "Evolution as Proof that Man is Divine." The word "proof" is seldom used in science, so numerous are the possibilities of change on the morrow. Yet, in the present connection, proof is available in the impossibility to bridge another gap, that between the highest of animals next to man and man himself as regards intelligence. Books galore have been written having in view another link between the lower animals and man, or indeed an unbroken chain of evolutionary intelligence, from the lowest unicellar or primary living animal to man.

This, however, is but another obscuring residue of the Darwin theory. Precisely, as the boundary line of species has never been crossed, so has the enormous gulf between the highest possibilities of the most intelligent of the lower animals known and the highest intellectual possibilities of man never been bridged. They are far beyond any de-

gree of comparison, as already stated in the preceding section.

Darwin, himself, was unable to tell us why the apes should have stopped short a million of years or so ago as regards the development of the mind, while man forged ahead, in this particular until he reached his present lofty intellectual status. Darwin wrote in this connection: "If it be asked why apes have not had their intellects developed to the same degree as that of man, general causes only can be assigned, in answer, and it is unreasonable to expect anything more definite considering our ignorance with respect to the successive stages of development through which each creature has passed."

As to present knowledge on the subject, Professor G. H. Parker of Yale,¹ stated, (1923), in reference to the relation of our mental life to our body "we are still not far from the position described by Vesalius in 1543, when he wrote 'How the brain performs its functions in imagination, in reasoning, in thinking and in memory, I can form no opinion whatever.'" Such being the case how may we expect to bridge the gap be-

¹ G. H. Parker: "The Evolution of Man," 1923, p. 102.

tween the most intelligent animal mind, which President J. R. Angell¹ compares to that of a young baby or low grade moron, and man's stupendous mental powers? This question has never been answered.

It is in this connection, from my viewpoint, that evolution has afforded proof that man is divine. His intellectual possibilities are so great when they are compared to those of any other so-called intelligent animal, that they betoken the presence in him of some influence, some power which no other animal possesses. In other words, *man's special intellect is due to his Divine spirit.*

"Nothing is more striking throughout the animal and vegetable kingdoms," writes Professor Agassiz,² "than the unity of plan in the structure of the most diversified types. From pole to pole, in every longitude, mammalia, birds, reptiles and fishes exhibit one and the same plan of structure, involving abstract conceptions of the highest order" "If there is anything which places man above all other beings in Nature, it is precisely the circumstance that he possesses

¹ J. R. Angell: *Ibid.*, p. 121.

² Agassiz: "Essays on Classification."

those noble attributes without which, in their most exalted excellence and perfection, not one of these general traits of relationship so characteristic of the great types of the animal and vegetable kingdoms can be understood or even perceived."

All these "abstract conceptions of the highest order" are attributed by the great Swiss naturalist to the Supreme Mind. Man is identified by him as the only being capable of witnessing this splendor, of estimating its worth, of grasping its immensity and, what is more, of conceiving their Divine source. Indeed, as stated in the *Hebrew version* by Job 32:8:

"God inspires a man; it is the Almighty
God who breathes knowledge into him."

How significant is the restriction to that one being, among the multitudes of living creatures, notwithstanding the striking similarities in physical structure and their identical method of physicochemical disintegration after death! It fittingly brands man's higher psychical self with attributes of the Divine kinship which Biblical teachings claim for him as "the temple of a living God."

Anthropology indirectly sustains the position of other branches of science in this connection: It places man at the head of creation as endowed with mental powers which mark him off clearly from all other animals.

It is not, as we have seen, by comparing the aptitudes of the highest animals in the scale of species, the ape, with those of the most degraded human beings that we can distinguish the immeasurable distance that separates the human from other species; but only by contrasting the highest mental powers of the ape with those of man. Any link here is unthinkable.

Can we in the same breath speak of the creations of the most highly trained ape ever known with those of a man who is able to compose a tragedy, a symphony, to plan one of our magnificent cathedrals, to solve great astronomical problems, to discover the manifestations of electricity, radioactivity and harness them to the uses of mankind; to work out the intricacies of creative chemistry; nitrogen, soil foods, coal-tar colors, etc.?

Language, that is to say, articulate grammatical speech, as is well known, is the exclusive property of the human race. As an

anthropologist, Dr. E. B. Taylor, states: "Man's power of using a word, or even a gesture, as a symbol of a thought, and the means of conversing about it, is one of the points where we see him parting company with all lower species, and starting on his own career of conquest through the higher intellectual regions."

The power to invent is as exclusively man's own. "No instance can be cited," writes the late Dr. D. G. Brinton, another distinguished anthropologist, "where even the most advanced of the inferior animals fashioned a single tool. When it is remembered that even the very lowest tribes of men make tools of remarkable ingenuity, and that in the most remote geologic age in which we find the slightest traces of man he both knew the use of fire and manufactured weapons, these distinctions mark him off broadly from all other living creatures."

The very word "create" (*bara* in Hebrew) which means to cut, carve, hew, shape or give existence to something new, affords the earliest clew sought by geologists and anthropologists to identify the presence of man in the deeper strata through cutting and hew-

ing tools and weapons. These are sometimes found, in fact, long before fragments of the fossil remains of their makers and users are uncovered. To create, thus typifies in scientific researches the dawn of the Creator's presence in man.

The Divine origin of the creative mind also suggests itself if an effort is made to ascertain the actual source of creative or inventive genius. It is then found that most inventions are but reproductions of processes which are commonplace in nature. Our own body—which but typifies similar functions in lower animals—affords many examples of this fact. The intricate water-supply systems of our cities are but enlarged replicas of our blood circulatory system, with its powerful central pump, the heart, and its conduits and pipes, the blood-vessels and their minute capillaries to our cells, representing the small water-pipes which furnish our homes. A great electric power plant is also typified by our own brain, the spinal and general nervous systems. Even central dynamos are reproductions of many ganglia or “solar plexuses,” star-like masses widely distributed in our body which insure proper

subdivision and distribution of electric energy to the blood-vessels of all organs and thus regulate their supply of blood and the nutrition and functional activity of our tissues.

Electric light devices are common in deep-sea animals. Some actually have an incandescent lamp hung ahead of them by a stem projecting from the head. They turn on the light when in motion and as needed. Some cuttlefish (*Thanmalampas*, for instance) have glowing lights at the tip and middle of their anterior "feelers" to enable them to detect, follow and illuminate their prey. Others remind one of Christmas trees with their different colored lights; others again carry a string of lamps along their body; some, indeed, may be actually studded with them as observed in specimens found during the Sargasso Sea explorations.

Turning to other fields, the aëroplane is but an imperfect reproduction of a bird; even the radio sets, wireless telegraphy and other modern wonders could all be shown to be reproductions of what nature has been doing millions of years.

Man thus utilizes *creative* powers which already exist in Nature and if creation itself

is traceable to God, whence does man himself receive his power to create? We have seen the answer in the quotation from the Hebrew version of Job 32:8, on page 99, *i.e.*, God's breath, the Divine Spirit, in him.

In these conditions evolution has clearly afforded proof that man is divine, for by relegating his body to its lowly level, the clay, it has raised the spiritual soul of which he is the "temple" to the level which its identity as the "image" ("likeness" in the Hebrew text) of God entitles it.

Man's nobler attributes, love of mankind and efforts to relieve its sufferings, also inspired by his Divine soul, may be illustrated by the accomplishments of the various departments of Medicine in modern times.

During the sixteenth century, Ambroise Paré, the leading military surgeon of his time, ordered his aids to "sweetly cut the throats" of all badly wounded soldiers, to end their sufferings. Professor W. W. Keen¹ states that his great master in surgery (also mine), Professor Samuel D. Gross, Sr., and other surgeons of his generation recalled "the

¹ W. W. Keen: "Medical Research and Human Welfare," 1917, p. 17.

way in which patients were bound hand and foot and held in the tight grip of four strong orderlies to secure partial quietude, and of the almost frantic involuntary struggles of patients and their screams of agony in the pre-anesthetic days." In 1844 this torture of all unfortunates who had to undergo an operation ceased forever, for then began the anesthesia era with the successive discoveries of nitrous oxide (Horace Wells, Hartford, Conn.); ether (W. T. G. Morton, Boston, 1846); chloroform (Sir J. Y. Simpson of Edinburgh, 1847) and other general, local and spinal anesthetics as true godsend!

The strides of surgery itself have been as phenomenal. The labors of Louis Pasteur (born 1822, died 1895), by introducing the science of bacteriology, prepared the way for benefits to suffering humanity which have no parallel in the history of the world. It was his great work in this direction which suggested to Lister the deadly rôle which bacteria played in surgery and brought about the marvelous operative results obtained ever since. To these discoveries we owe the fact that it was possible to save the lives of nearly *ninety-two per cent.* of American soldiers

wounded and injured during the World War.

As stated in the report of the Surgeon-general of the United States Army for 1920 (p. 21): "When the more destructive effects of the military agents are considered with the greater prevalence of artillery missiles and the undoubtedly higher percentage of multiple wounds, it is evident that the saving of life was much greater than is apparent from these figures."

The influence of Pasteur's researches on the curtailment of disease has been no less marvelous through investigators who took up the study of the worst destroyers of humanity, as a result of the great Frenchman's work. Before his labors enlightened the world, the mortality from many diseases was terrific. In the French Campaign in 1802 in San Domingo the deaths from yellow fever, malaria and dysentery were so numerous that reinforcements could not arrive in time to replace the dead soldiers. Every man died.

Today, all these three diseases have been mastered. While the rôle of the mosquito had been suspected by many—Dr. Carlos

Finlay, of Havana, in particular (1881)—tests to ascertain this fact were necessary. As no animal was inoculable, the physicians and army assistants who were conducting a research in Havana risked their own lives. Prominent among these were Major Walter Reed, Private James Carroll of the U. S. Army and Doctors Aristides Agramonte and Jesse W. Lazear, the latter of whom died. Major Gorgas (our late Surgeon General) then screened yellow fever patients and destroyed mosquitoes. Havana, South America, our Southern States, among other regions, have had no epidemics of yellow fever since, although they had recurred practically yearly for over one hundred and fifty years!

Far worse even as man destroyer was malaria. A malignant form, for instance, killed three hundred thousand natives in India within two months—more victims of the infectious mosquito. It was the curse of our Southern States and of all tropical countries in particular. Again, intelligent protection against this insect by General Gorgas reduced the mortality from nearly twenty per cent. during the French Panama

Canal operations—which ruined the enterprise at the time—to but eight-tenths of one per cent. Everybody knows today that where there is no infective mosquito there is no malaria, and is familiar with the many measures available to destroy mosquitoes.

Dysentery, the third man killer of the tropics, has also had to yield to the action of emetine after its cause, a parasite, had been found.

Children with diphtheria three decades ago, were destroyed by this dread disease at the rate of at least thirty per cent. Now, the use of antitoxin *on the first day* saves practically every case. This was rendered possible by the labors of Dr. Behring, of Germany, and Dr. Roux, of the Paris Pasteur Institute, originally prompted by Pasteur's initial discovery.

Last, but by no means least of the few examples which it is possible to submit here, is typhoid fever. During both the Civil and the Spanish American Wars, the mortality was extremely high. During the World War the mortality was reduced at such a rate by antityphoid vaccination in the U. S. Army from September 1, 1917 to May 2,

1919, that despite the millions of men exposed, there were but two hundred and thirteen deaths. Colonel Russel, head of the service, calculated that if the conditions of the Civil War had prevailed in the recent war, the death rate would have reached over fifty-one thousand, while under those of the Spanish War, it would have exceeded sixty-eight thousand. In other words, it is safe to say that nearly one hundred and twenty thousand young men were saved from death on this one item alone! And why? Because Drs. Pfeiffer and Kolle, in Germany, and Dr. Wright, of England, had found that vaccination started a defensive reaction in the body against the specific germs of typhoid fever—another wonderful result traceable back to the original labors of Louis Pasteur.

What every one should bear in mind in this connection is that it is practically certain that every family in the United States today includes one or more members who would have passed away if the pioneer labors of this one scientist, who loved humanity—and who also did much for animals by arresting the swine plague, the chicken cholera, etc.

and also the many diseases met in animals as well as in man—had not placed the initial steel forged barriers in the way.

And what was the creed of Louis Pasteur, termed by an editorial writer in the London Standard, "the most perfect man who has ever entered the Kingdom of Science" when, I might say, he entered the Kingdom of Heaven?

In Pasteur's own words, it was as follows: "He who proclaims the existence of the Infinite—and none can avoid it—accumulates in that affirmation more of the supernatural than is to be found in all the miracles of all the religions; for the notion of the Infinite presents the double character that it forces itself upon us and yet is incomprehensible. When this notion seizes upon our understanding, we can but kneel" "I see everywhere the inevitable expression of the Infinite in the world; through it, the supernatural is at the bottom of every heart" "Blessed is he who carries within himself a god, an ideal, and who obeys it; ideal of art, ideal of science, ideal of the gospel virtues; therein lie the springs of great thoughts and great actions; they all

reflect light from the Infinite.”¹ (See Frontispiece.)

Evolution, by making it possible for us to realize fully the physical nature of our body, reveals to us the spirituality of such a man as Pasteur, and this spirituality itself leads up to its Divine source. We must recognize, therefore, that far from being an enemy of mankind, *evolution is one of the greatest elucidative contributions to religion of all times.*

EVE NOT THE “FIRST WOMAN” BUT THE
DIVINE SPIRIT WHICH A CHILD RE-
CEIVES THROUGH ITS MOTHER.

We are dealing here with the very foundation of religious thought. Evolution, as interpreted in the foregoing pages, has shown that even with the Darwinian theory eliminated, man, like all other animals, developed gradually from his own original cell. His creation, therefore, as usually apprehended from Biblical text, with Adam and Eve as the “original pair,” can no longer stand. Adam, we have seen, does not mean a special

¹“Life of Pasteur” by Valléry-Radot. Introduction by William Osler, 1924.

individual but "man" in general. This, however, leaves the identity of Eve in question, particularly in view of the statement in Genesis 2:22 that of

"The rib which the Lord God had taken from man, made He a woman."

Although the "rib" problem has never hitherto been explained, we have, in the Biblical version of the creation of woman, an example of the powers of observation existing even long before the original text of the Bible was written, for two small glands (the adrenals which by their secretions insure pulmonary and tissue respiration we have seen) located just above the kidneys and resting posteriorly *against the lowest false rib* on each side materially influence sex development.

The ancients had evidently observed, as physicians occasionally do today, and veterinarians likewise in the lower animals, that a tumor of the organs referred to caused striking changes in the body at large and influenced markedly the sex in children. Such a tumor, especially the type we now term "hypernephroma," produces in a boy enormous development of the entire body; a boy of seven years, for instance, being trans-

formed in a couple of years into a full grown man with beard, etc., and sometimes with such muscular development as to constitute the "boy Hercules" of shows. In such a case reported recently, for example, a boy of four years and ten months had a full beard and could throw a man in a wrestling match. Such tumors are much more common in girls than in boys, however. The important point in this connection, as regards the "rib" mystery, is that when the tumor occurs in girls or in any female animal, the cow, for instance, it causes besides abnormal virility, transformation into a male. But in some individuals, tumors of the same glands produce double sex or hermaphroditism.

These growths, which occur behind or very close to the lower ribs, are the only ones which influence sex transformations, and on the basis of many cases met by them in human beings and the lower animals, the ancient observers doubtless reached their conclusion that the first woman was created from man.

The "rib creation" of woman, however, even though based on observed phenomena, is a mere makeshift introduced, perhaps by

the Chaldeans, to meet a difficult situation, but in no way belonging to the revealed Biblical text.

The need for such an explanation suggests itself when we realize that the so-called "Adam" was supposed to be alone in the world, being its "first man," and that, there being no wife for him to render the usual process of reproduction possible, the first "offspring" had to be supplied by "Adam" himself. The effects of tumors under the ribs afforded suggestive food for a plausible explanation, at least for the primitive minds such as those addressed or taught at the time.

Analyzed in its higher sense, however, why should the male body be made the origin or source of the female body even in this symbolic crude way? The answer to this question appears when the meaning of other verses concerned with the process are analyzed. Thus, as stated in Genesis 2: 18:

"The Lord God said: It is not good that the man should be alone, I will make him an helpmate for him."

An essential point in this verse is that "the man" is used, meaning mankind at large, while in the next verse it is plainly inferred

that "there was not found a helpmate for him" in all cattle, fowl and beasts in the field. No lower animal, no other species, could serve so lofty a mission. Mankind alone therefore, a single species and family as established by science, the *Hominidæ*, could become ("become" because we are dealing here with the primordial human cell endowed with its power to assume its Divine function) the "temple of the Living Soul." Hence the verse in Genesis 1:27:

"So God created man in his own image;
in the image of God created He him;
male and female created He them."

That it was actually the primordial cell which was endowed with the power of assuming its rôle as temple of the Divine soul, after having undergone its evolution to the human status is also indicated by the question in Matthew 19:4:

"Have ye not read that He which made them *at the beginning* made them male and female?"

Analysis of the "rib" problem, in the light of modernized evolution, thus harmonizes with the conclusions previously reached concerning the *immeasurable superiority of man*

and woman over and above all other animal species—due to the presence in them of the Divine Spirit.

Elimination of Eve as the temptress of Adam only serves to bring to light her sublime rôle as a spiritual entity. Indeed, every bit of scientific knowledge we possess points to her divine rôle: Even long before the Biblical story was recorded, and over 2000 years before the Christian era, stone tablets in our archeological museum at the University of Pennsylvania, written in Sumerian, the oldest of the Babylonian languages and read recently by assistant professor Edward Chiera, attest to her identity as the greatest benefactress of the human race.

Why the abominable prevailing interpretation of the story of human creation which, besides the errors already noted, makes of "Eve" the mother of mankind, its first woman, a temptress, not to mention the degrading insinuations it provokes? Again, have we to contend with a misinterpretation of the Hebrew text.

In the preceding chapter we saw that the word "life" used in the verse (Genesis 2:7)

which states that God blew the "breath of life" into the nostrils of man, did not mean the usual interpretation of life, but "spirit," God's spirit, and that because of this Divine act man "became a living soul." We also saw that Adam means simply "man"—man in general. "Eve" stands in a similar position; it is not a personal name; it means "life" (*eva*). If, now, one ascertains what the word "life" is in Hebrew, it is found to be *chaiyim*. This word, however, has several other meanings; among these are "the breath of life," the "soul or mind," "the Divine Spirit"—a suggestive aggregate.

The trend of all this will perhaps be made clear by repeating I Corinthians 15:44, and appending to each segment of the text its own meaning:

"There is a natural body" (the human physical body) and

"There is a spiritual body" (*Eva*, the breath of life or Divine Spirit or Soul).

The original Mosaic doctrine refers to *Eva* as "the Being which is, was, and will be," thus emphasizing the element of perpetuity, and forming part of the Very God-head as a spiritual entity in which sex, a ter-

restrial factor of physical development on earth, we have seen, plays no rôle. "In the psychic genesis," writes Schuré¹ "the human soul is known as Aisha, another name for Eve. Its abode is heaven, where it lives happily in the Divine ether, but without knowledge of itself. It enjoys heaven without understanding it. To understand it, it must have been forgotten and then recalled; to love it, it must have been lost and reconquered. This it cannot do without suffering." Eva "yields to the desire and falls. It ceases to be purely a soul, a sidereal body living solely upon the Divine ether; it enters a material body"

It is *Eva* then, the Divine Spirit from heaven, *which penetrates the forming child regardless of sex*, an attribute which forms part, we have seen, of the physical development of the body proper. Indeed, as stated in Luke (1:15):

"He shall be filled with the Holy Ghost
even from his mother's womb."

It is here that the maternal rôle becomes a part of the Divine mission. While each of

¹ Schuré: "Les Grands Initiés," Paris, 1925, p. 192.

the parental pair possesses its own individual spirit acquired at birth, the mother alone stands as intermediary for the transmission of Eva to her offspring. In other words, she does not out of her own spirit contribute to her child's: she transmits to it the heavenly spirit of Eva, a Divine spark from the God-head. *A mother thus fulfills the most sublime rôle in all Nature: as the direct link between God and mankind.*

This is clearly implied in Genesis 4:1, when Eve

“conceived and bare Cain and said,
I have gotten a man from the Lord.”

while in Genesis 3:20:

“Adam called his wife's name Eve because she was the mother of all living.”

If we now recall that the meaning of “living” in Genesis 1:27 is the Divine Spirit and that Eva itself has precisely the same meaning, the direct connection between Eva and all mankind, entering as it does every human offspring, will become self-evident.

Nearly fifty years of close contact with human suffering have impressed upon me that the most beautiful and soul stirring word

in any language judging from the many virtues that it implies, is "Mother." Men of science, it is true, observe the dawn of the maternal instinct even at the lowest rung of the animal ladder, that is to say, in the lowest of animals, but if to this instinct we add the human mother's rôle as custodian and intermediary for the transmission to her offspring of what is most precious in the whole Universe, the Divine Spark, we can realize why "Mother" means so much to us all.

Thus it is that *man and woman become the custodians of a Spiritual Body or the Temple of the Living God, but with the body as a physical product of evolution.*

CHAPTER IV.

THE DIVINE CREATIVE AND DYNAMIC MEDIUM IN NATURE.

THE PRESENCE OF GOD IN MATTER AS SUSTAINED BY PHILOSOPHY.

THE complexity and contradictory nature of the various philosophical doctrines concerning the existence of God, the characteristics of matter in general and of the atom in particular, have, especially in recent years, practically submerged the fact that atheism, as represented by the various doctrines of materialism which deny the existence of a Divinity, has been losing ground at least as steadily and proportionately as science has progressed in all directions, while the deistic doctrines have as steadily gained ground.

Atheism. After the great Lavoisier, about the middle of the eighteenth century, had laid the foundation of modern chemistry, the nature of the atoms constituting matter and their physical relations attracted much attention. In so far as the religious side of the question was concerned, various writers attributed to "chance" the process through

which atoms formed molecules and the multitudinous kinds and forms of matter, including living things. The law of probabilities, however, showed that "chance" would probably strike the right spot and do the right thing only once in over three million attempts even with ten elements, while the wonderful order and precision observed on all sides in nature contrasted strikingly with the blind and unintelligent attributes of a supposedly inert substance. The French chemist Dumas, the mentor and friend of Pasteur, disposed of the idea of chance, however, when he said, "chance is very clever, in fact so clever that it should be given another name." Indeed, so much was claimed for this so-called "mechanistic theory," which could not be demonstrated, that it is now only of historical interest.

Another form of materialism which flourished about the same period was that of Hume and his school, according to which nothing that could not be traced to a definite cause—God being regarded as beyond the limits of the scheme since spirituality in any of its forms was indefinite—could be regarded as other than a blind belief. But

this school, which included many prominent scholars, and that of Renan, whose doctrine was "the admission of the supernatural relegates one beyond the limits of science," have both had to yield to the contributions of scientific research, which is steadily breaking down barriers on all sides.

Can either school tell us, for instance, the nature of the most powerful source of energy known to science—the universal ether, which supplies us with heat, light, electricity, radio-activity and many other marvels? Is this wondrous ether which we only know by name not "a definite cause," or beyond the limits of science because, being unknown, it is termed "supernatural?"

I might recall in this connection the verse in Hebrews 11:3, that:

"Things which are seen were not made
of things which do appear."

A third form of materialism is that in which everything reduces itself to movements in matter, the spiritual soul or self being non-existent. Our senses alone are our sources of knowledge. While this is true as far as the acquisition of experience and learning through the senses: hearing, vision,

touch, etc., is concerned, it leaves, in the light of Tyndall's, Priestley's and other philosophers' interpretation, an "impassable chasm" between material and psychic phenomena. How, in other words, is the knowledge acquired by the brain through the senses coordinated and built up into new ideas? Again, conscience, morality, virtue, honor and other qualities of mind, which have nothing to do with the senses, are not accounted for.

Another great gap appears when the mental attributes of man are compared with those of animals. We saw in the preceding chapter that this gulf is enormous. Why, if everything is reduced to movements in matter, should this psychic difference occur? Why the distance between such a mental giant as Laplace, the great mathematician and author of the nebular theory, for instance, and the highest mental accomplishment of the finest ape ever born? Who ever saw a moral cat or a religious dog? What animal other than man could create a Beethoven symphony or even a lullaby?

On the whole, it is self-evident that atheism is not sustained by any department of science,

pure or applied. No scientist today would or could deny the existence of the universal, intangible and imponderable medium previously referred to, the ether, whose stupendous workings he observes on all sides. He is not dealing today with "*an atom*" which the philosophers of the last two centuries treated merely as the smallest subdivision of matter and as a necessary component of molecules and chemical formulas, but with an *almost almighty atom*, next to which the T N T used in shells during the World War is virtually inert. As the fundamental factors in all atoms, which are minute replicas of our solar system, it is being studied by a special set of scholars—Millikan, Rutherford, Bohr, Einstein, Perrin and many others—and is revealing powers and properties of which electricity and even radioactivity afford today but an approximate idea. And all these due to an invisible medium, beyond the reach of our senses!

Materialistic Theism. By this term, I mean various doctrines in which the Absolute is not deemed a separate entity of external origin, but an immanent active component of all matter.

The best known of these doctrines is *Agnosticism*. It does not deny God, but teaches that He is beyond our reasoning powers, on the general principle that man can only take cognizance of external phenomena through his senses, nothing being known outside our mental processes. Evidences concerning the origin of the universe, future life, etc., are cast aside as mere inferences. It is the school of Huxley, Spencer, Comte and others, and is but a reproduction of the skeptical school of the Greek philosophers of old.

This doctrine is subject to the same objections that militated against the third of the forms of materialism previously described with an "Absolute," however, as an inevitable factor. It does not take into account the many mental attributes such as conscience, morality, etc., which have nothing to do with the senses, and also the enormous gap in mental powers between man and the lower animals. In the present connection, however, agnosticism has contributed its share to progress by analyzing deeply many sides of the question, though even then unable to deny the exist-

ence of the Deity, or of many evidences of a mind behind all natural phenomena. Agnosticism is in reality but a form of deism, in which the Divinity is given no name.

Another well-known doctrine is *Monism*, in which one ultimate being or principle explains all the evolutionary phenomena and activities of the universe, all matter being endowed with feeling and power of motion. As generally given in books, however, an important feature of the doctrine is overlooked, *i.e.*, the rôle attributed to the Divinity. This was clearly outlined by Haeckel, the sponsor of monism, in 1892, in an address at Altenburg, Germany. Extolling the union of faith and science, this great naturalist said: "Our idea of monism, which alone adapts itself to the most elevated knowledge of nature, recognizes the spirit of God in all things."

Very little can be said against this theory, which has been sustained by many observers, though erroneously as a purely materialistic one, since it advocates an immanent God within nature, a dominating truth, as will be shown later.

All this applies also to a certain extent to *Kant's doctrine*, which though reducing the Divine Power to a limited field, that of utilizing an existing great universal force to attain His beneficent ends, teaches that we should believe in Him as the source of moral law, and that He will eventually cause it to prevail.

Of major importance in the present connection is *Pantheism*, in which God is considered as forming part of the material world, but in which the Deity is undergoing development along with matter itself. While this doctrine, formulated by Hegel, lies midway between atheism and theism, another form of pantheism, the older, defended by Epicurus and Lucretius and in more modern times by Bruno, Spinoza and Leibnitz with various modifications, merged the Deity and the soul or spirit as a force pervading nature, which thus possesses in itself the principle of development or evolution.

While evolution is clearly, we have seen, a characteristic of living things in both plant and animal life, nothing tangible demonstrates that, after the stages of development or formation which the earth traversed until

animal life appeared on it, it has itself undergone a continuous process of evolution. Cosmogony shows, however, that solar systems as indicated by the white, yellow and red stars, are born, live a prolonged period, then gradually die, as do human beings. This is not "evolution," however, in the sense of continuity this term implies; it is the mere series of progressions followed by decline which all temporary things in the universe undergo.

The fundamental law of the conservation of energy, which does not permit quantitative variations even in the universe as a whole, would have to undergo a transformation if pantheistic evolution at all prevailed.

Summarizing the various doctrines outlined in this section and beginning with those under Materialistic Theism, six salient deductions appear to be warranted: (1) Unlike the purely materialistic doctrines reviewed, they are only partly vulnerable when analyzed. (2) They are all up to a certain extent, constructive. (3) They have persisted during many thousands of years, some of them, pantheism, for instance, prevailing extensively in the East, India, particularly,

even now. (4) All their sponsors, even the agnostic, imply the existence of a supreme power. (5) Even though their interpretation of God is such as to endow Him with a rôle in which He is only merged with matter as an inherent or immanent principle, the all-important fact remains that (6), despite differences in detail, a *large number of philosophers and scientists of the first order both ancient and modern, after fathoming the whole question to its very depths, and from different angles, have recognized the existence of God whether they characterize Him by name or not.*

The purely materialistic doctrines, irrelevant as it may appear, have also contributed much to our knowledge of the question as a whole. Their negation of any participation of the Divinity in the workings of nature in general and matter in particular has imposed upon them the necessity of inquiring deeply into the nature of "inert" matter and of the forms of energy, force, will or intelligence which endow it with the various forms of activity it manifests. Their inability to identify this source of energy or its nature has caused the *materialists, while denying*

the existence of God, to fall back upon the universal ether as the source of all forms of energy in keeping with all scientists, including the materialistic theists.

We are thus brought to the realization that all sincere workers, whether they be materialists or materialistic theists, are contributing valuable knowledge, and that *while the materialistic theists have accepted God as an immanent active component of matter, the pure materialists, as do the materialistic theists and all well-informed scientists today, accept the universal ether as the source of all physical phenomena attributed to God.*

The next question in order, therefore, is whether the ether is not the agent through which God exercises His powers?

THE DIVINE CREATION OF THE UNIVERSE,
INCLUDING OUR SOLAR SYSTEM, AS
SUSTAINED BY SCIENCE.

The wonderful order which reigns throughout the whole universe, the mathematical precision with which the heavenly bodies travel in space, the splendor and multiplicity of solar systems such as our own, with their mil-

lions of brilliant stars and the many other wonders which it is our privilege to behold, can no more be attributed to "chance" than could the multitude of combinations of inert matter according to the "mechanistic" theory referred to under the preceding heading. If, as then stated a group of ten atoms would under that theory, according to the law of probabilities, combine normally once in over three million times, the likelihood that the organization and order of the universe under the same law could occur at all is so infinitesimal as to preclude any need of computation. *A primary, coordinative and dominating intelligence imposes itself* from so many directions, in fact, that, as Voltaire said: "If God did not exist He would have to be invented."

We have seen that many philosophers and scientists have, indirectly or directly, sustained the Deistic conception of Creation. While Socrates first urged the need of a sovereign intelligence to bring order in the primitive chaos, Descartes held that matter out of which the whole universe was built was first disseminated by God. Newton attributed the circular motion of the planets

in space to Divine influence. At the 1925 meeting of the British Association, Sir Oliver Lodge, one of the greatest physicists of modern times, said: "I believe that creation is continual creation in the depths of space. Things may happen whereof we can have no conception. When one considers that we are receiving the light of stars which shone thousands of years ago and that this self-same light is only reaching us now, and when we consider that the same laws of physics and chemistry apply to all worlds and universes and not to our one earth, it can only testify to the unity of mind that created and is creating it."

The "continual creation in the depth of space" referred to by Lodge recalls essential features of evolution emphasized when this process was described, new forms of life being evolved today as they have in the past. The different colors of the stars bespeak the same evolutionary process in their mutual relations, although, as stated on page 129, like all else, they eventually die. It is the totality of these radiant bodies which perpetuates evolution. Thus, according to the observations and calculations of various as-

tronomers, ninety-five per cent. of the stars are white, indicating full activity, while the remaining five per cent. are either yellow stars, indicating intermediate periods of formation or beginning decline, or red stars, indicating greatly reduced activity. Evolution thus asserts itself in the heavens as it does on earth.

That the same laws of physics and chemistry apply to all the universe is also based on the soundest scientific foundation. Proof of this fact was afforded by the use of a marvelous and withal simple instrument, the spectroscope. The application of this instrument, known as "spectroscopy" or "spectrum analysis," first practiced by Newton in 1666 and greatly developed by a German scientist, Fraunhofer, in 1817, enables physicists to ascertain the exact nature of the chemical elements in space, the stars, the sun's chromosphere and gaseous protuberances, nebulae, comets, auroræ, and even lightning! Spectrum analysis is so precise that Ramsay, the distinguished British physicist, found a gas in the sun which he appropriately termed "helium." At first this gas could not be found on earth, but finally, after

painstaking investigations, he discovered it in a mineral in Norway. Other investigators have since found it elsewhere, including the United States.

The physical side is no less marvelous than the chemical. Despite the stupendous distances to be taken into account, the rate at which the bodies in space are moving can be computed by the shifting of the lines or combination of lines in the spectrum. The speed with which our own solar system travels in its own orbit can also be computed through mathematics and another marvelous product of human genius, the telescope as it is today, evolved from the modest instrument of Galileo, the Italian scientist.

On the whole, it has become evident that the chemistry of the entire universe corresponds, even though far from having been scrutinized to its depths, with that of our own planet.

The paramount importance of the foregoing conclusion appears when the nebular hypothesis of Laplace, formulated by this great astronomical mathematician in 1796, is analyzed in the light of more modern observations, omitting, however, modes of forma-

tion, spirals, etc., described by different astronomers, which may not eventually prove to be nebulae, and other theories which are still debatable.

The development of a solar system, such as our sun and planets, is first characterized by the appearance of an enormous cloud of gas, the future nebula, of which there are several hundred thousands in various stages of evolution, especially about the poles of the Milky Way. At first, the gaseous mass occupies a space much greater than the solar system it is destined to form, but it is eventually transformed into a great whirlpool, the axis of which in time becomes a glowing nucleus or kernel, the precursor of a *sun*. The gaseous whirlpool and its nucleus then undergo gradual contraction, the whole mass becoming flattened and lens-shaped.

The external spirals of the rotating mass tend themselves in some instances, by becoming detached at one end from the whirling mass, to become much smaller whirlpools or nebulae which also form a central nucleus, destined later to become a *planet*. Several of these secondary nebulae are sometimes formed, as is the case in our solar system,

the planets cooling off gradually as they assume their normal density and size. The same process attends the evolution of *satellites* such as our moon, which are formed by external spirals derived from their planet and also due to the condensation and cooling of the nucleus or kernel of each spiral.

The rotation of the planets around our sun and the similar motion of satellites around their planets are but a continuation of their mutual relations in space. While at first they are glowing masses, their contraction to their final state is attended, we have just seen, by gradual cooling. Their sun, however, becomes less dense and retains much of its nebular heat. It is this heat which radiates so beneficially on earth for the sustenance of all plant and animal life including man.

Comparison of this evolutionary process of the solar system with the two first verses of the first chapter of Genesis is elucidative in various ways, especially when the original Hebrew text, as translated recently by Professor Fagnani,¹ is taken into account. The

¹ "The Beginnings of History According to the Jews." A. and C. Boni, N. Y., 1925.

Biblical text, according to the English version is as follows:

1. "In the beginning God created the heaven and the earth.

2. And the earth was without form and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters."

The original Hebrew text says nothing about "created" in the sense, as Professor Fagnani well states, of "creating out of nothing." The word "created" conveys a wrong meaning therefore. The Hebrew word used is a synonym of "make." The important modification this brings about is that God did not create the universe out of nothing but that *He made it out of something, i.e., something in space*. In other words, God, out of the ether of space and the matter it contains, made the *nebulæ*, including that of our own solar system, *i.e.*, its sun and planets, which of course include our earth—all on lines confirmed by scientific knowledge.

The second verse sustains all this by indicating that the earth did not exist in space ("the deep") before the "Spirit of God" intervened. But the word "spirit" here has

a far-reaching meaning, for it indicates that it is not God's individual self which pervades space, but what Professor Fagnani's translation gives it in Hebrew "the spirit of (or wind of) Elohim," in the sense "of an egg . . . being brooded over by the power of Elohim" or God. Briefly, from my viewpoint, *the power which endows matter with the many creative attributes observed in space is not God Himself, but a spiritual dynamic medium contributed by Him to all nature, i.e., Divine energy.*

It is the "intrinsic power of motion" of Aristotle, the so-called "essence" in matter, without which, owing to its inherent inertia, it cannot do work. It is the unlimited, intelligent, independent agency to which chemical affinity, chemotaxis and other forms of attraction that foster combination are due. As such it is autonomous or self-acting, and is thus *independent functionally of God after having been bestowed by Him upon nature at large.*

While both the Bible and science sustain the foregoing analysis of the evolution of the universal solar systems, including our own and the earth, it becomes a question whether

the universe itself, including the matter out of which solar systems, nebulae, asteroids, etc., are formed, were originally created by God, as stated in Genesis 1: 1:

“In the beginning, God created the heaven and the earth.”

That “heaven” refers to the universe is suggested by its meaning in Hebrew, *she-mayin*, “heaved up things;” while the word “universe” does not occur in Hebrew. As we have seen, however, the word “create” is also absent in the Hebrew text, and the word “made” means a production out of something. Could God create the universe out of nothing, in the light of science? As will be shown when the properties of the universal ether are reviewed, much evidence attests to the fact that it is through this medium that the Divine creation occurs.

CALAMITIES NOT ATTRIBUTABLE TO GOD AS PUNISHMENT OR RETRIBUTION.

An all-important feature of the question must be clearly apprehended in this connection. It is that the Divine medium of which the universe is constituted is an automatic

agent. Even though created to carry on universal functions bewildering in their splendor, utility and scope, this medium, judging from human, or even humane, standards, is not always beneficent. In fact, it is often blind and immeasurably brutal. Earthquakes, tornadoes and other calamities which sacrifice children, women and men by the thousands, hundreds of thousands at times, regardless of their innocence or worth, are vivid reminders of this fact. Nor are physical cataclysms limited to our planet; they are well known to occur in space and also in the sun.

Analyzed in the light of science, however, they are all exaggerations of highly important terrestrial and climatic functions. They are quite independent of God's will. To anathematize Him, therefore, when sorrow stirs the emotions to their very depths, is both wrong and unjust.

"The Lord is good to all; and His tender mercies are over all His works."
(Psalm 145:9.)

Very few people realize, doubtless, that volcanoes contribute to the preservation of life. Indeed, carbon is an important acces-

sory to the air for the maintenance of life, and is locked up mainly in sedimentary rock, coal deposits, etc., deep down in the earth. Volcanoes serve to supply the air with this element by their periodical eruptions. Professor Schuchert,¹ of Yale, recalls in this connection that "if volcanism should cease it would not be long before the existence of life would be impossible because of the absence of carbon," and adds that "if there were again as much life as there is at present, all the carbon of the atmosphere would be in living plants and animals, and if such a condition were possible, death would come to them all. Therefore life and its abundance at any time are conditioned by the amount of this gas present in the atmosphere."

While earthquakes and volcanic eruptions are often disastrous as regards human life and property, the danger zones are well known, while, conversely, there are enormous areas of land practically devoid of danger, *i.e.*, non-volcanic areas, all over the earth. Of course it would be unthinkable to expect the millions of residents of the Pacific Coast

¹ Schuchert: "Evolution of the Earth," New Haven, 1924, p. 52.

from Alaska to Cape Horn, or those of Japan, Southern Italy, etc., to abandon these countries because they are volcanic. The fact remains, however, that it is man's own choice, if he elects to spend his life and expose it and also his own family to destruction. It is obviously not a Divine *fiat*.

Again, while fogs are often sources of danger to ships at sea, flying air-ships and planes, they constitute with the wind, though itself extremely destructive when converted into storms, hurricanes, tornadoes, etc., excessive manifestations or perversions of another composite function upon which our very life depends. Thus, fogs are composed, as is well known, of minute droplets of water evaporated by the radiant action of the sun from the surface of seas, lakes, lagoons, rivers, etc. All rise to higher levels in the atmosphere, forming clouds. Disturbances of equilibrium caused in the air temperature by the sun, also, then cause air currents or winds, which in turn drive the fog and clouds over great land areas. Here, colder air currents produce condensation of the minute droplets, forming the clouds into drops which, in turn, fall to the ground as rain.

Everyone knows the influence of droughts on crops, and that to all animals, including man, water, pure or merged in with other beverages and foods, is a *sine qua non* of life. Lack of water kills much sooner than lack of food, being essential to every cell and every vital function.

This wonderful sequence of sun, waters, fog, clouds and rain for the maintenance of all life on earth cannot but recall the properties and inherent intelligence of the ether of space of which all of these participants in the process are composed, as we shall see presently, varied as they are.

Here again, man, by the feats already accomplished—dikes for the prevention of floods, safety devices such as collision bulkheads in vessels to prevent sinking, storm-proof buildings, etc.—has demonstrated that it is possible for him to annul the accidental effects of climatic disorders, in reality in most instances but exaggerations of natural physical functions.

That, in due time, he will be able to control them, and prevent cyclones, hurricanes, etc., and visually penetrate fogs, I am convinced. What he has already accomplished

has proven the purely physical nature of these phenomena, and that it is within his power to prevent their harmful effects.

Once more, it is not God's desire that any calamity shall befall man; He gave him creative power allowed to no lower animal, enjoining him (Genesis 1:28), with his mate, to

“Be fruitful and multiply and replenish the earth, and *subdue it*.”

CHAPTER V.

THE DIVINE UNIVERSAL MEDIUM AS THE ETHER OF MODERN SCIENCE.

THE ETHER AS THE MEDIUM OUT OF
WHICH ALL MATTER IS FORMED.

TESTIMONY was adduced in the preceding chapter to the effect that the ether of space, the "universal ether" was the Divine medium of which the entire universe was built. This interpretation is further sustained when the modern conception of the formation and structure of matter is analyzed—as will now be done succinctly.

As everyone knows, a solar system such as our own, consists of the sun and its planets. An atom of matter, even though so infinitesimal that millions could cover a pinhead, is built much on the lines of, and in a measure functions much as does, a solar system. In lieu of the "sun" however, it has its "nucleus" or kernel; just as the nebula has its nucleus, its center of activity. The atomic nucleus is markedly electric for it is charged with positive electricity. The

sun is likewise a highly concentrated positive charge of electricity.

Its particles thus charged, remind us of the sun in another way: they are mainly composed of the sun gas, helium. The planets of the solar system are represented in the atom by free electric particles or electrons which, however, are negative, and rotate in orbits around the nucleus. Just as is the case with the solar system, the sun's attraction for the planets is represented in the atom by a marked attraction of the positive nucleus for the negative electrons which rotate around it.

We thus have in the atom the three salient features of a solar system: a glowing electric nucleus, representing the sun; particles or electrons rotating around it representing the planets; and the attraction by the nucleus for these particles representing the attraction of the sun for its planets. A single atom of *oxygen* may, in a measure, be said to be a minute reproduction of our solar system with its eight planets.

The next feature in this connection is the difference in the nature of the various chemical elements, hydrogen, oxygen, lead, etc.

This is very important, for it explains the *origin and evolution of matter* and also how its various elements are formed.

The difference between the various atoms or kinds of matter is due to the variations in the number (not quality) of the positive electrons which the nucleus (minute sun) contains and of the negative electrons circulating, planet-like, around the nucleus. Thus, the lightest atom is that of *hydrogen* (the gas used frequently for balloons) because it has but one positive electron in its nucleus and but one negative electron rotating around it. The next gas in point of lightness is *helium*, the nucleus of which contains four positive electrons and two negative electrons, leaving two negative electrons free to act as "planets" around it. A heavier atom is that of *lithium*, which, however, is the lightest of all metals. It has but three positive electrons in its nucleus and three negative electrons around it. This increase of positive and negative electrons in the atom continues forming many different atoms, until *uranium*, which has ninety-two of each electron in both its nucleus and the space surrounding it, is reached.

This uranium, a heavy white metal, is particularly interesting in two ways. It is one of the starting points of, so to say, a chemical genealogical tree, for by eliminating eight of the positive electrons in its nucleus and four in its circulating negative electrons, it becomes finally, after passing through other stages, *helium*, *thorium*, etc., the familiar metal, *lead*.

This exemplifies the manner in which a great number of chemical elements are continually being formed from others. And yet the atoms of the different chemical elements formed are qualitatively the same. *It is only a matter of number and arrangement of the electrons.* Each atom of any chemical substance is thus merely an infinitesimal planetary system. Indeed, we may now extend our admiration of the grandeur and mathematical unity of the universe and its multitude of solar systems down to the infinitesimal atom of matter, the "mighty atom" as it has been styled.

The second remarkable property of uranium is that the instability of its atom, due to its great atomic weight (238.2 as compared to hydrogen 1, for instance), causes it

to throw off readily its electrons in order to form lighter atoms. Thus, we have seen that by doing so, it forms *lead*; while the atomic weight of uranium is 238.2 as shown above, that of lead is only 207.2.

The striking feature of the process, however, is that it is when a heavy atom such as uranium carries on this function that it becomes *radioactive*. In 1898 Professor and Madam Curie found that two elements, *uranium* and *radium* (the latter of which they discovered and found thousands of times more active than uranium) possessed this property. This was shown by their action on photographic plates, an observation first made by the French physicist Becquerel in 1896 and which caused these rays to be known as "Becquerel's rays."

If we now inquire into the identity of these rays, we shall again be brought to realize that they also tend to indicate that "all nature is one."

The "positive electrons" referred to repeatedly above, and known as the *alpha* rays, are the little Goliaths of the atom, for they contribute nearly ninety-nine per cent. of all the energy radiated by it. Playing the rôle

of "sun" in the atom, this is quite appropriate. They do not, however, give off light, but instead, large rays which travel but one-tenth as fast. Their antagonists are the negative electrons circulating about each "sun" as "planets." These little negative particles, which constitute the *beta* rays of Becquerel, cause, when they enter the former, varying degrees of rapid or slow disintegration. As a result, there are formed and ejected *gamma* rays, of very high frequency, the familiar *X-* or *Roentgen rays*. Now these rays are known to be waves in the ether.

Additional details are necessary to understand, as far as the present state of knowledge will permit, the genesis of radioactivity. Sir Oliver Lodge, in a recent review of the subject, wrote: "All radiation is produced by changing the motion of an electron. The electrons circulating round an atom have the peculiar power of dropping from one orbit to another, every now and then, and when they do so they emit energy in the form of radiation. The kind of radiation they emit depends on how far they have dropped and where they drop to. If they drop from a long way off they emit ultra-violet radiation

or X-rays. If they drop only a little way, they emit infra-red radiations, the waves of which are shorter than those of visible light. Each drop nearer to the nucleus corresponds to a line in the spectrum. By analyzing the spectrum the structure of the atom has been made out. This process is a reversible one. Not only is radiation emitted; it can also be absorbed. When radiation is absorbed the electron is jerked up again. How far it is jerked up depends on the kind of radiation. All these details can be followed, and are studied, by the great spectroscopic analysts who are now at work."

Summarizing all these data it seems plain that the need of a primary intelligent and coordinative creative medium such as the ether asserts itself on all sides and that a very large number of philosophers and scientists of the first order have directly or indirectly regarded it as of Divine origin. The original Hebrew text states that the universe was created out of matter in space by a spiritual agency of Divine origin. The Bible (Hebrews 11:3) states, referring to "*worlds*,"

"Things which are seen were not made
of things which do appear."

The ether, as interpreted by scientists, meets all these conditions and is the only medium known to science that is capable of doing so. It is invisible, permeates all matter and pervades all space by wave motion, without limit in the universe. It offers practically no resistance to radiant energy, even to light from the sun and the most distant stars discovered. It is the medium which transmits "radio" waves, wireless telegraphy waves, Becquerel rays, X- or Roentgen rays, etc.

The ether is endowed with creative power in space and on earth. On earth the positive and negative electrons of atoms which by their number and arrangement form the various chemical elements, carbon, iron, iodine, phosphorus, etc., being, as the term "electron" denotes, electric, they are, therefore, *composed of ether*, in virtue of Clerk Maxwell's demonstrated principle that "*etherial radiation is fundamentally electrical.*" In space the same principle applies, since its matter, as observed spectroscopically, is the same as on earth. *The ether of space, therefore, builds solar systems as it does matter, with coordination and intelligence,*

and endows all chemical elements it forms with the properties they are known to possess.

All this sustains the Biblical text in which, out of unseen things (the ether as shown by science) visible things are formed, these including, as worded in Genesis 1:16:

“God made two great lights; the greater light to rule the day and the lesser light to rule the night; he made the stars also.”

On the whole, the data submitted, even though representing but a minute fraction of the wonderful labors devoted to the subject by scientists, clearly show that *the trend of modern knowledge is to sustain the teachings of the original Hebrew text that the universe (“worlds”) was created out of an invisible medium of Divine origin as indicated by its coordinative intelligence, and its stupendous and irresistible interdependence.*

All this finally leads us to a unification almost overwhelming in its bearing upon religious thought. Electricity is not the only source of ethereal radiations, but, as Faraday and Maxwell have pointed out, this applies also to light and magnetism, while Einstein’s

labors tend to suggest that, as held by Newton, it applies also to gravitation.

No progressive scientist denies this unification of energies today. In the light of the conclusion and data submitted above, this means that *it is the intelligent spiritual medium, the ether, an immanence of God, bestowed by Him upon all nature, which carries on all its functions. Therefore, all Nature is One.*

Atheists have invented various purely physical terms to replace that of God in this limitless cosmic process, but they overlook the fact that coordinative forethought and design and many other evidences of the workings of a tremendous intellect on all sides in nature are not met or explained by any purely physical device or term.

Once more are we brought to realize that science confirms the intuitive deductions of both ancient and modern philosophers as well as the Mosaic doctrine itself, which includes the existence of an intelligent breath (wind, in the Hebrew text) as a factor of the material "light."

"By His Spirit he hath garnished the heavens." (Job 26:13.)

This material "light" became the imponderable element of the Greek philosophers, Heraclitus, Pythagoras and others—"the great soul of the universe." In the sixteenth century Paracelsus urged its recognition as the occult agent through which chemical changes observed by him were produced. The more modern physicists then recognized that the transmission of light through space betokened the presence therein of a vibrating imponderable element, the ether. Newton, "who had spent his whole life in the study of the heavenly bodies, went further," writes Schuré,¹ "he terms this ether the *sensorium Dei* or God's brain, that is to say, the organ through which the Divine thought acts upon the infinitely great as well as upon the infinitely small."

"For by Him were all things created that are in heaven and that are in earth, visible and invisible." (Colossians 1:16.)

¹ Schuré: "Les Grand Initiés," Paris, 1924, p. 293.

THE ETHER AS THE ACTIVE AGENT IN
THE GENESIS OF MANKIND.

The purely physical nature of the human body, even though a "temple of the Living God," was indicated by considerable evidence, both Biblical and scientific, submitted in the second chapter. That life itself is but a series of continuous chemical reactions in a complex aggregate of different elements, protoplasm, is also demonstrable by many facts, a few of which can only be submitted here.

A frog's heart, detached from the animal and left several days on ice, or allowed to dry to a crisp in the sun, may be made to beat again simply by placing it in a certain chemical solution. In fact, the heart may be cut into many small pieces—evidently a dead heart then; but it is not dead, for on placing the small fragments in the same solution, each little piece will soon beat actively. Human tissues under similar conditions behave in the same way.

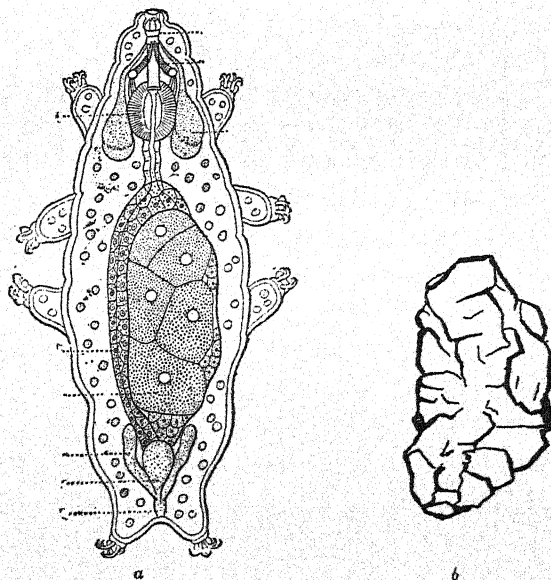
Whole animalcules may be completely dried by the sun, being shrunk to the condition of a dust particle. A drop of rain water

on such a particle, however, will soon cause it to spread out and resume its normal living state. An example of this phenomenon is afforded by a tardigrade, a mite-like animalcule provided with four stumpy legs and feet supplied with claws, and with a complex set of internal organs and a nervous system. Rotifers are familiar animalcules of this class. The dust of eaves-troughs may contain many such; scraped off and moistened, then spread upon a slide and examined under the microscope, they will eventually be seen to resume their normal activity, as shown on the opposite page. If now, however, the moisture is allowed to evaporate, all movements of the rotifer cease and it resumes its dust-like state.

As is well known, grains of wheat found in the graves and buried with Egyptian mummies thousands of years have been said to sprout and bloom when planted. While this is not true, the fact remains that plant seeds of various kinds have been found to retain their power of sprouting as much as two centuries if kept dry in the meantime.

The remarkable labors of Dr. Alexis Carrel of the Rockefeller Institute, New

York, also indicate that life and even tissue growth are the result of chemical reactions in which an external agency such as "life"



DUST PARTICLES RESTORED TO LIFE BY
MOISTURE. (VERWORN.)

a, A creeping tardigrade; *b*, The same as dust particle.

or "vital force" plays no rôle. He found that detached fragments of animal tissue not only continued to live in blood plasma (the fluid portion of the blood), but that they actually grew therein, the living state and growth

continuing indefinitely as long as the serum was furnished under appropriate conditions. Chick embryo tissues, moreover, were found to grow abundantly not only in chicken plasma, but also, though not quite so well, in plasma from dogs, rabbits and human beings. This illustrates anew the physical similarity, chemical in this connection, between man and the lower animals.

These extraordinary phenomena find their explanation in the data submitted in the foregoing chapter. Each tissue cell is but an aggregate of chemical elements, but so numerous that their identity has only been determined in part. These are, in the main: carbon, hydrogen, oxygen, nitrogen, sulphur, phosphorus, potassium, calcium, sodium, chlorine, iron, manganese and magnesium—all found in abundance in nature as inert components of non-living or inorganic matter. No one of them is peculiar to the living state. They jointly constitute the extremely complex substance known as *protoplasm* which, when living and observed under the microscope, appears as a viscid or colloid granular fluid. This “protoplasm” carries on body functions, nutrition, secretion,

growth, motion, etc., forming part, as it does, of all tissues of plants and animals, including man.

We thus have in this aggregate of atoms of which living protoplasm is the resultant, another example of the oneness of nature, since it takes us back through these elements and atoms to the universal ether. The atoms must, in fact, originally have been formed in the nebula of our solar system or perhaps during the formative stage of our planet, for the spectroscope indicates, we have seen, the presence of many of them in corresponding heavenly bodies. As regards the primitive protoplasmic or living cells, however, they could only have been built up out of these atoms, or aggregates of them, building elements many millions of years after the formation of the earth had begun, when it had shrunk to approximately its present size by condensation, and when its intrinsic temperature had been sufficiently reduced to render its surface suitable for living things. This included many factors, physical and chemical, such, for instance, as plants for food, respiratory gases, etc., capable of perpetuating life and reproduction.

Professor Osborn,¹ of Columbia University, is of the opinion, based upon the application of uniformitarian evolutionary principles, "that when life appeared on the earth some energies pre-existing in the cosmos were brought into relation with the chemical elements already existing. In other words, since every advance thus far in the quest as to the nature of life has been in the direction of a physicochemical rather than of a vitalistic explanation, from the time when Lavoisier (1743-1794) put the life of plants on a solar-chemical basis, if we logically follow the same direction we arrive at the belief that the last step into the unknown—one which possibly may never be taken by man—will also be physicochemical in all its measurable and observable properties, and that the origin of life, as well as its development, will ultimately prove to be a true evolution within the pre-existing cosmos."

The original, primordial cell or cells which eventually, by suitable aggregation, myriads in number, were to constitute man, first ap-

¹ H. F. Osborn: "The Origin and Evolution of Life," London, 1918, p. 2.

peared when, after several hundred million years of evolution from the nebula, the earth had become suitable for life. This includes a layer of gases capable of sustaining respiration (the atmosphere) and a dense fog-like blanket (the hydrosphere), to protect it from excessive solar irradiation and desiccation. Ever renewed, over the planetary dry soil, this hydrosphere served eventually to form lakes, rivers and seas.

The concordance of this course of events with Genesis (1: 9, 10) is striking when we realize that the Hebrew text was written many centuries before the Christian era:

“God said, Let the waters under the heaven be gathered together unto one place, and let the dry land appear.”

“And God called the dry land earth and the gathering together of the waters called he seas.”

It is in these waters that the origin of protoplasm and the simplest examples of life occurred (the Archeozoic era of geologists), followed later (Cambrian period) by lowly marine organisms of the trilobite type. Then appeared (Ordovician period) the first known fresh-water fishes.

Here, again, there is concordance with the Biblical text (Genesis 1:20) but only when corrected:

“God said: Let the waters bring forth abundantly the moving creature that hath life.”

The Hebrew text is incomplete here, however, for according to Professor Fagnani, it “adds teeming things.” This portrays the true sense of scientific teachings, which all indicate that germinal or primary cells were at first produced in great quantities, a multitude of different groups constituting the initial cells of as many plants and animals, “each after its kind,” as is repeatedly stated in the Biblical text.

The origin of animals from the primordial seas is afforded an interesting confirmation by various familiar facts in medical practice. Not only does the human body contain many relics of its primitive aquatic existence such as embryonic branchial or gill clefts, but the blood plasma (the fluid portion of the blood) of the entire body contains the same main salts and other chemical substances that are found in pure sea water though in weaker solution. The “salty

tears," sweat and other body fluids are particularly rich in the main salt of sea water, sodium chloride. The craving for it by animals and its use by man as a condiment, "table-salt," betoken its physiological importance to the animal cell.

In many disorders, particularly those due to considerable loss of blood, saline solution, water containing the proportion of salt found in the blood serum or plasma, and known in Europe as "artificial serum," is used extensively as a remedial agent.

In exsanguinated frogs, saline solution injected into their large blood-vessels will sustain life pending the formation of new blood. Sterilized sea-water injections, properly diluted, have also been used by Quinton and others in many acute and chronic disorders, with marked benefit. Briefly, all the cells out of which our body is built are essentially marine cells living in their original medium, dilute sea water.

During a prolonged period, the Paleozoic era, marine fishes dominated the scene, but reptiles and insects, as shown in coal strata or layers, began to appear. The next era, as revealed by findings in the next higher

geological levels, the Mesozoic, is that of reptile dominance with great lizard-shaped flying monsters of the dinosaur type, armed with teeth larger than those of any present-day mammal and whose bipedal footprints, showing the marks of sharply-curved grasping talons, have been found in many regions.

Here, again, the Biblical text finds itself confirmed, for the dinosaur belongs to a reptilian stock which originated birds of all kinds. Hence the terminal phrase of the previously quoted Genesis 1:21, that God also created

“Every winged fowl after his kind.”

The next era, the Cenozoic, is one of major importance to mankind for, as its name implies, it constitutes the age of mammal dominance, during which the higher primates, which include the apes and man, began to appear. The presence of fossils of mammals of various kinds in different parts of the world, coincident with the dinosaurs and other powerfully armed and mighty beasts, has suggested that during a prolonged period the earlier mammals were destroyed in great numbers by these

great beasts of prey. At any rate, it is only when the latter were virtually extinct that they began to develop.

There first appeared then a series known as the "archaic" mammals, or semi-primitives, both herbivorous and carnivorous, ranging from light-limbed hoofed animals to clumsy, massive limbed beasts recalling somewhat the rhinoceros or elephant of our period. Their skull capacity, however, vouchsafed very limited brain power. The rapid increase of better organized or modernized mammals eventually caused them to migrate to less propitious climates, and their career closed in the early part of the Cenozoic era. In the meantime, a great variety of animals of all sorts developed in various parts of the world.

Concordance with the Biblical text is once more noticeable here. Thus, as stated in Genesis 1:24:

"And God said: Let the earth bring forth the living creature *after his kind*, cattle and creeping thing, and beast of the earth *after his kind*."

The first men, more like animals, humanoids, appeared about one million two hundred

thousand years ago, according to Keith, but as Professor R. S. Lull,¹ of Yale, states, "with apparent insufficiency of evidence, judgment as to the antiquity of man should be for the present withheld."

We have seen that the Darwinian theory of evolution is no longer supported by the scientific world, and that, as stated by Professor Osborn, the ascent of man from the ape—the so-called monkey—is merely a myth. Another evolution theory is gaining ground, however, that of Lamarck, who is the real father of the modern evolution ideas, as long held by Professor Cope of the University of Pennsylvania. He was a French nobleman (J. B. de M. Lamarck) born in 1744, whose labors, based on the work of anatomists and naturalists supplemented by personal investigations, were overshadowed by those of Darwin.

Lamarck recognized God as the Creator of all things. In so far as the creation of living things was concerned, however, he held, as previously stated, that the Divine fiat or spark was limited to the initial or smallest

¹ R. S. Lull: "The Evolution of Man," New Haven, Conn., 1923, p. 37.

animal forms, and that it endowed them with the power of developing thereafter automatically, but under the influence of environment. This innate power to develop, *i.e.*, to undergo evolution, he attributed to a *subtle but undetermined medium* which he regarded as life. This life medium was capable, in his opinion, of causing the increase in size and form of the body as long as required. In lowly animals, the production or reproduction of an organ could result from the need of that organ. In general, the development or power of an organ corresponded with the use of that organ. All that was thus gained or changed in the body during the life of an individual was preserved for the following generation and transmitted to the offspring. Many data are available in support of Lamarck's views, but their enumeration would exceed the limits and aims of this book.

The interpretation I have submitted represents a development of Lamarck's fundamental idea, but amplified through the light thrown upon the evolution problem by recent scientific researches, those reviewed in outline in the foregoing chapters. God also

here is the Creator, but through His own spiritualized medium, the subtle and imponderable ether, which is now the object of intensive research on all sides. Instead, however, of merely initiating life, as Lamarck believed, it also sustains the life process itself and evolution in all animals, including man. This is due to the fact that, being the chemical foundation of all atoms in matter, and the living body being but a complex aggregate of atoms, all living organs are structurally but aggregates of ether. Briefly, *God's medium, the ether, builds all matter, including living things. Hence, the physical side of human evolution is a property of the universal ether.*

On the whole, the trend of science is to sustain and confirm Biblical teachings concerning the development of man as given succinctly in Genesis, thus illustrating anew the active rôle of scientific research in the evolution of religious thought.

“All things were made by Him, and without Him was not any thing made that was made.” (John 1:3.)

THE ETHER AS THE SOURCE OF INTELLIGENCE
IN ALL ANIMALS AND PLANTS.

Stress was laid in the fourth chapter on the origin from God, as an inherent property of the universal ether, of the intelligence in all matter. Its powers were shown to be creative, coordinative and eminently discriminative, even though properties of the lowly "clay" or "dust of the ground." This brings animal intelligence, including that of the physical body of man, within the domain of the ether.

The manifestations of intelligence of which the ether is capable in the higher organisms, both in plants and in animals, betoken clearly not only the workings of a creative mind but also the landmarks of pre-conceived precautions for the welfare of each living thing. Thus, the great French physiologist, Claude Bernard, wrote that "in the vital fabric is traced the ideal design of an organization still invisible to us, but which has beforehand assigned to each part and each element its structure and its properties." Even the lower forms of animal life are provided for; as stated by the Eng-

lish naturalist Jonathan Franklin: "A spark of the entire creation glows even in the smallest of creatures; the less a living animal seems able to think, owing to the inferiority of its organs, the more, judging by the acts of wisdom of which it is capable, does it become evident that some One has thought for it."

Plant life is also endowed with physical intelligence. As Dr. Luther Burbank,¹ to whom we owe much sound knowledge, says: "Plants make experiments which succeed or fail. They try different ways of meeting their environment. From these attempts there may develop, in the long run, basic as well as superficial variations, changes that react upon the germ plasm. The plants form habits which aid to fix the type. Hop vines will curl in one direction about a support and no human power can cause them willingly to turn another way. The sensitive plant is a special case of what I call 'sub-conscious heredity.' I have often amused friends," continues Dr. Burbank, "by suddenly removing the glass covers of sensitive

¹ Luther Burbank: New York Times Magazine, August 30, 1925.

plants in my gardens. The moment the covers are lifted the plants will sink to the ground. They will wait quietly, as if to see what will happen, for about six minutes. Then they will cautiously straighten up again. But repeat the experiment of removing the covers too many times and at last the plant will ignore you."

Evidences of physical intelligence are clearly discernible even at the lowest rung of the animal ladder, the primitive one-celled amæba, composed entirely of protoplasm. Not only will it hide itself behind some opaque substance, a leaf, plant stem, etc., when a larger animalcule, a water louse, for instance, capable of devouring it, happens around, but it is capable of carrying on complex rôles. In our blood and that of lower animals a similar cell becomes an active participant in the defensive functions against disease and also a scavenger to rid the blood of detritus and other useless but harmful agencies. These are ingested by the cell and digested by means of enzymes, trypsin, and other substances similar to those in our own digestive tract.

In diseases due to germs, these same cells,

known as "phagocytes," remind one, especially if the infection is localized, of trained troops in action. They surround the enemy and "infiltrate" their lines if possible. They then gorge themselves with the disease germs present, a multitude of phagocytes dying on the field, the aggregate of their "bodies" forming the familiar "pus." The bacteria even in these dead cells are not all killed by the digestive process, however; hence the danger of pricking or cutting one's finger or allowing pus to penetrate the skin during an operation. Infection of the surgeon's hand may then occur and general septic infection follow.

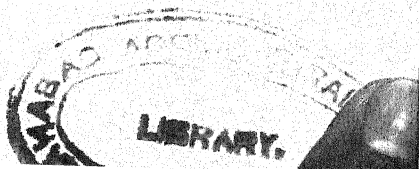
It is evident that animal intelligence begins at the very start of life and that it owes this cardinal function to its highly specific and complex chemical structure, but, primarily, to the ether out of which all tissues are formed.

It is often stated that mind is the product of the brain, but it is obvious that this does not apply to the amebic cell we have reviewed, for it has no brain or nervous system. We have witnessed signs of intelligence in plants and many organisms totally devoid

of brain cells. It is, in fact, a property of all matter and of all organisms. In view of Clerk Maxwell's oft verified principle that radiations in the ether are fundamentally electric, we are brought back once more to the conclusion that *ether is the fundamental source of animal intelligence*. Such being the case, and the dynamics of the ether being, as we have seen, electric, *animal or physical intelligence is a manifestation of electric energy*.

Though functionally quite automatic, we have seen, the physical mind of the universe is capable of manifestations so stupendous that even the phenomenal developments of science during the last fifty years, including the newer knowledge concerning the relations between the ether and creation of all that is, have but served as clues to wonders to come.

Is it the animal mind which has visualized these possibilities? We have seen, in the third chapter, striking limitations of animal mind in the lower animals: the highest anatomically and physically developed animal, the ape, has not advanced beyond what he was a million years ago. Like a horse, a



dog and a flea even, an ape may be trained with much patience to do a few tricks, sometimes surprising in their imitativeness. But this is not of its creation. It is man again, his trainer, that he imitates—something that he has seen a human being do. Animals are imitative, not ingenious. Occasionally the accidental discovery that upsetting a milk-can will prove profitable, or that pushing a latch will open a door, etc., may appear wonderful, but that is not due to a previous study of the relations between cause and effect. Again, instinct in all animals evokes at times some surprising performances. But as long as the memory of man can recall, the same animals, the same plant, the same crystal, the same molecule and the same atom have always done the same thing automatically under exactly the same circumstances.

Why the enormous gap between all animals in this respect and man? Is the brain its underlying cause, since this organ increases gradually in size as each animal grows in importance until man is reached? Such cannot be the case, for the mental distance between the ape and man is such as to pre-

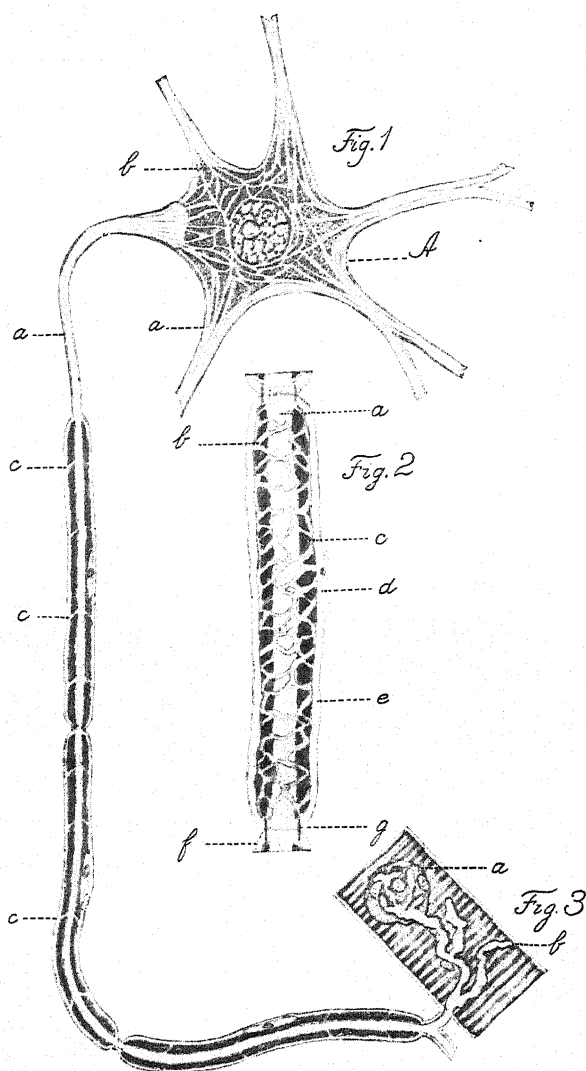
clude any comparison. The superiority of the human mind over that of all other animals has not been accounted for by science otherwise than by a greater brain development. Were this true, some animal on earth would surely approach man in intelligence, and a scale of mental power would exist below him representing a gradual decline until the lowest forms were reached. But the gap between man's mental attributes and those of the animals nearest to him is such, while the scale of variations between animals is so insignificant in comparison, that science is undoubtedly wrong in this instance.

Any effort to ascertain the cause of this phenomenon imposes at once the need of knowledge concerning the manner in which a nerve impulse to a muscle, for instance, is produced. A multitude of theories have been vouchsafed, but the only one which has been sustained experimentally so far is one suggested by myself in 1903.¹ My researches showed that what are now known as "axis cylinders" and "fibrils" (see various α 's in the annexed plate) were capillaries in which

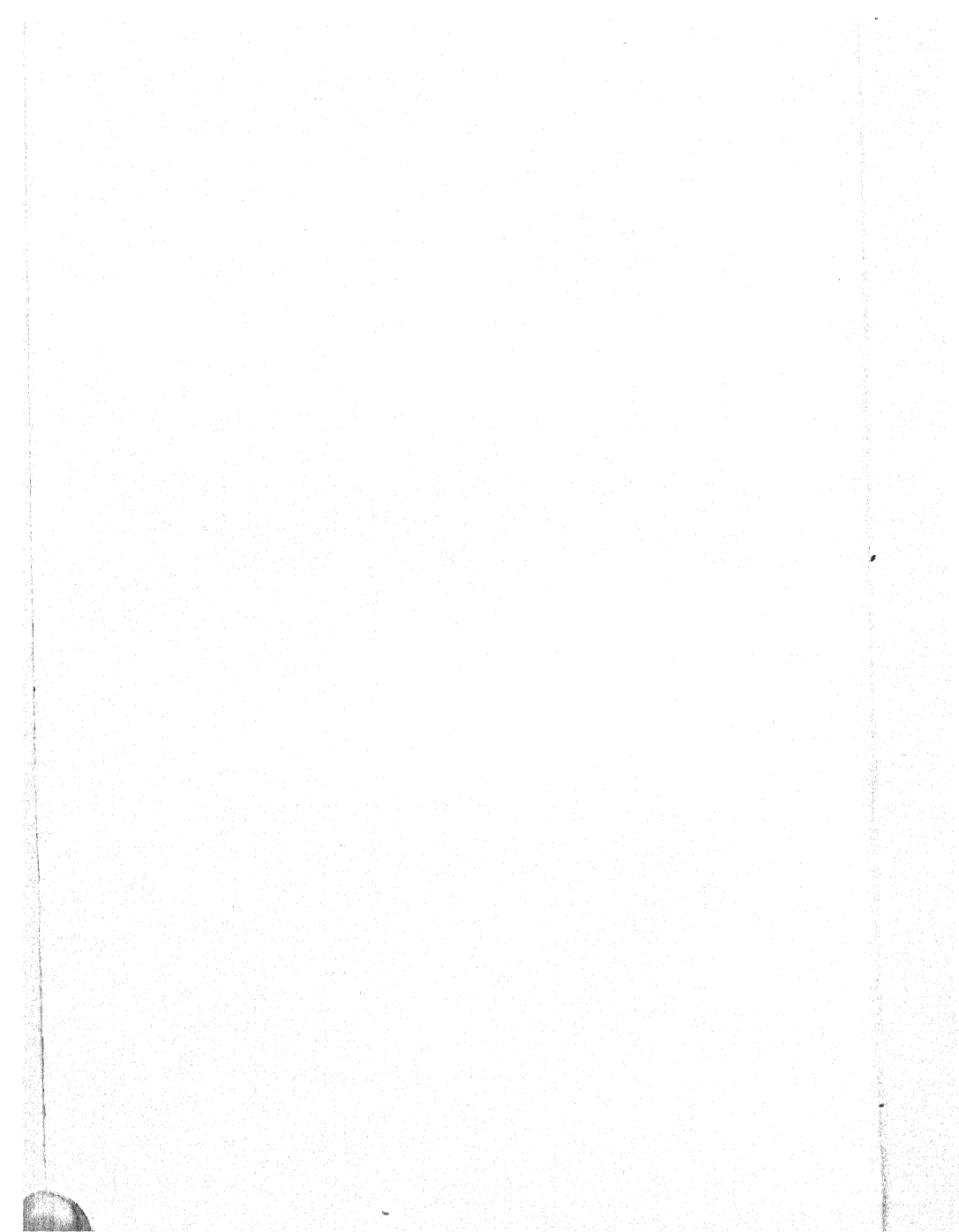
¹ C. E. de M. Sajous: "The Internal Secretions and the Principles of Medicine," Phila., 1922, 10th Ed., vol. ii, p. 952.

blood plasma containing "*adrenoxidase*," a substance which supplies oxygen to the dynamo, so to say, of the organ or cell body (Fig. 1, *A*). The oxygen liberates heat while passing through and reacting a fatlike substance (the black areas in Fig. 2, *b*) rich in phosphorus, termed *lecithin*, whose heat production when oxidized is controlled by another substance merged with it, cholesterin, or more correctly *cholesterol*, since it is a monatomic alcohol, to prevent undue heat liberation. The cell body (Fig. 1) as the "dynamo" of the organ, sends its impulses through the nerve proper (*c c c* Fig. 1) to, for example, the fragment of muscle shown in Fig. 3.

The main active organs in the process are those which, we have seen when the rib problem was analyzed, played the leading rôle in abnormal growth and sex changes in children, through their excessive stimulation of all tissues. The brain and nerves receive precisely the substances secreted by the adrenals. These substances (adrenoxin, lecithin and cholesterol) have not only been found in the brain and all nerves, but the latter have been found to undergo metabolism with



A NERVE CELL AS AN ORGAN. (SAJOUS.)
(Described in the text.)



a rise of temperature and excretion of carbon dioxide—the typical life process in all tissue.

As Professor Howell,¹ of Johns Hopkins states, referring to various data he cites: "These facts warrant the belief that in the normal activity of the nerve chemical changes of some kind take place; and another fact which points in the same direction is the *high temperature coefficient* exhibited by the nerve. The evidence furnished (necessity of oxygen and formation of carbon dioxide) indicates a reaction of oxidation." This process is precisely what my own investigations have explained.

As shown in the annexed illustration, I regard each nerve cell as an organ having its own circulation and supplied with functional biochemical agents similar to those in all other tissues, not only in the human family but in all other animals.

A notable feature in this connection is that we have in the cell of a neuron, as shown in Fig. 1, another instance of the general plan of nature discernible everywhere. The solar system which we found reproduced in the atom, in the tissue cell,

¹ Howell: "Text Book of Physiology, 8th Ed., 1923, p. 119.

etc., is also clearly pictured in Fig. 1, the nucleus in its center being a replica of the sun, whence radiates central power. The solar orb does so through the ether of space, one of the manifestations of which we have seen, is electric energy. A nerve, though itself a builder of nervous energy, is at the same time a conductor of a great aggregate of this energy liberated in the star-like cell body (Fig. 1) which gives it off.

The cell body, therefore, is itself a factory and storage battery of nervous energy. Just as all manifestations traceable back to the ether are like it, electric, so is the whole nerve cell, the neuron as it is called in medical parlance, electric. A current of electricity applied to it, in fact, will raise its functional activity in proportion as the strength of the current used is great, and cause in the nerve, measurable fatigue and chemical phenomena clearly denoting active work.

When we recall that the brain contains millions of these minute storage-cells, for a nerve cell can only be seen through a microscope, it is not difficult to understand that *the brain is a great storehouse of electric energy which owes its mental powers to the*

intelligence inherent in the ether out of which its chemical constituents are built.

A paramount feature of this conclusion, however, is that it refers only to the mental functions of the organ as the *animal brain*, in contradistinction to the same functions observed in plants and which are a property of their protoplasm. Man, like all other animals, possesses such a brain, which is the source of the animal instincts, good and bad, previously described. But man alone, we have seen, is capable of incomparably greater mental creations than the highest of all other animals. His brain, therefore, is endowed with functions other than those of the latter. As I have submitted in the third chapter his higher intellect is due to his *Divine Spirit*.

As John Fiske¹ so well said:

“Whereas in its rude beginnings the psychical life was but an appendage to the body, in fully-developed Humanity, the body is the vehicle for the soul.”

¹ John Fiske: “The Destiny of Man,” 1895, London, p. 65.

CHAPTER VI.

SCIENCE CONFIRMS THE SOUNDNESS OF RELIGION.

SCIENCE REMOVES THE CAUSES OF DISCORD IN CHRISTIAN CHURCHES.

THE present is one of the fateful hours in the world's history," wrote the Rev. Dr. S. Z. Batten, of Washington, D.C., in a vigorous monograph. "There are those who say that Christianity faces the greatest crisis and supremest challenge of its own history" "What right have the churches, in view of the world situation," according to this writer, "to claim the Christian name? The churches stand arraigned at the bar of public opinion and it is perfectly fatuous for churchmen to resent these questions or to avoid the issue." Hence the title of his monograph: "Why not try Christianity?"

Since Dr. Batten's paper was written the Scopes trial, with Mr. Bryan's involuntary exposure of the vulnerability of the funda-

mental teachings of the Bible to ridicule, has occurred. Genesis being that portion of Scriptures which deals directly with God, it is self-evident that with the Divine Self so weakened as a factor of the whole religious edifice, Christianity, based on the Divinity of the Son of God could but suffer grievously. The literalists are undoubtedly perpetuating this destructive process, and, by their well meant but ill-advised attitude and efforts, based mainly on Mr. Bryan's unfortunate disregard of scientific testimony, *are slowly but steadily undermining religious thought as a whole.* They will eventually destroy its influence in this country, unless, realizing that they are on a wrong course, they adopt one in keeping with their true aims and hopes and, in all details, based on the solid rock of truth.

Indeed, no one could doubt that Christianity is standing trial now, but it is as plain that, incoordinated and disjointed as is its defence, the situation is being aggravated from day to day. A safer plan undoubtedly would be to ascertain the nature of its causative factors, and if possible, to eliminate them. Experience has shown that

this course affords the best and promptest results in the treatment of disease. It should be the best to adopt even where religion is the sufferer.

Unfortunately, as shown in the foregoing chapters, we are dealing with a family of diseases, so to say, as different and disconnected as they could possibly be, even though affecting a single organism, that of religion as a whole. Semitic philology and some twenty branches of science being factors of the problem, the remedial measures themselves assume complexity. Hence the need of a summary of the various factors of the case as a whole, previously analyzed in this book.

Defective Translation of Genesis.—This has been the source of literally destructive confusion. The errors or misinterpretations were not only numerous, but they seemed invariably to modify the sense of fundamental questions. The translators could not with any degree of justice be blamed for them; ancient Hebrew did not possess a rich vocabulary and the guide in the choice of words was mainly what to the Hebrew scholars who did the work appeared most plausible.

Defective Interpretation of Evolution.

This is another source of serious harm. Doubtless the Darwin theory as construed by this distinguished naturalist, and particularly the "monkey origin" of man, tended to foster atheism and did so particularly during the last two decades of the last century. But why should literalists perpetuate these theories after they had lost their hold upon scientists in general? Why set aside all the work done by these scientists on the subject during the last twenty-five years?

Erroneous Assumption of Physical Likeness to God. Interpretation of the verse (Genesis 1:26) "let us make man in our image," to the effect that man's body is meant as the object of resemblance to the Godhead is not only repellant, reminding one of the quaint Biblical expression that a man who believes such a thing of himself is "vainly puffed up by his fleshly mind" (Colossians 2:18), but is also directly criticized in the Biblical text itself. It is, in fact, one of the most mischievous misinterpretations of religious teachings of the series, because it conceals the fundamental principle

upon which sound belief can rest, *viz.*, the existence of a spirit in man quite independent of the physical body which, as emphasized repeatedly in the Bible, is purely physical, having been "formed of the dust of the ground." We have seen that man alone is endowed with such a Divine Spirit.

How do these fundamental errors modify the present interpretation of Genesis? We shall now see that *the solidity of Biblical teachings has not been in the least weakened by science, but fully sustained*, despite the thirty-five centuries which have elapsed since Genesis was originally compiled or written by Moses.

Another, and in many respects the paramount fact, is that to deny the existence of God in the face of the data submitted, becomes not only difficult but unjustifiable, since it imposes the necessity of accepting another agency capable of accomplishing what, without straining logical reasoning in the least, *verifies the faith in the existence of and the omnipotent powers attributed to God by believers in Him.*

The title of the analytic study submitted below, "religio-scientific concordance," will

perhaps appear novel, since so much has been done to perpetuate discord between religion and science. It is hoped, however, that it will inaugurate an era of harmony which, if truth prevails, must surely endure.

RELIGIO-SCIENTIFIC CONCORDANCE. The quotations from the text will be limited to the necessary matter, such refrains as "and God saw that it was good," "it was so," etc., being omitted as unnecessary. Each verse will be analyzed in sequence, followed by the proof in each instance which science offers.

Genesis 1:1: "In the beginning God created the heaven and the earth."

The Hebrew word *bara* for "create" means the presence of some substance out of which something is formed or fashioned. Hence such a substance was already present in space when the heaven and the earth were created. SCIENCE: *The substance in space is the ether of space or cosmic ether.*

The "heaven" in Hebrew is either *galgal* "a rolling cloud" or the "heavens" *shamayim* "heaped up things" and, therefore, water. The term "ether" being of course unknown, "waters" was used instead by the prophet.

SCIENCE: *The constituents of water, hydrogen and oxygen, are, like all matter, composed of ether electrons.*

The "earth," in Hebrew, *arga*, means the created earth. SCIENCE: *All matter in space, including our solar system and our earth and its satellites, is composed of ether electrons.*

In accord with the Biblical text, therefore, science has found that a fundamental substance existed in space and that all its bodies including our earth were composed of this universal substance, represented in Hebrew by "waters," owing to the clouds, rain, etc., from above.

Genesis 1:2: "The earth was without form and void, and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters."

The first part of the verse serves to indicate the non-existence of the earth in the primeval deep and that, in contrast to what was to follow, darkness prevailed. SCIENCE: *There was a time when the earth did not exist and, our planet being a part of our solar system and formed with it, darkness prevailed in space where the solar system with its planets was to develop.*

The Spirit of God in the present connection is in Hebrew *rouach*, which means "wind," thus denoting that an effulgence of Divine energy is the active medium in space. SCIENCE: *The ether of space is a fundamental medium the dynamic powers of which are inconceivable. Electricity, radio-activity, heat and light, and the formation of all matter, and other properties point to it as the universal source of energy.*

The "waters" here, in Hebrew *raveh*, referred to as being acted upon by the Divine Spirit, indicate the presence of some substance replete with, or full of, resources. SCIENCE: *The ether of space, as shown above, is the most prolific medium in varied resources of any known as regards the fundamental functions of the universe.*

Genesis 1:3 and 4: "God said, Let there be light . . . and God divided light from darkness."

These verses are self-explanatory. SCIENCE: *The appearance of light corresponded with the formation of the nebula, the vast cloud of radiant gas which ultimately became our solar system. The glowing area was contrasted with the darkness of space surrounding it.*

Genesis 1:5: "God called the light day and the darkness he called night. And the evening and the morning were the first day."

The word "day" here and its recurrence is, according to Professor Fagnani, "simply a literary device to separate the works of creation into six parts." SCIENCE: *Its true meaning has long been accepted as "period," which denotes the accomplished formation of the nebula. This explanation applies also to the remaining five days, i.e., periods, and will not, therefore, be repeated.*

Genesis 1:6: "God said: Let there be a firmament in the midst of the waters and let it divide the waters from the waters." 7. "God divided the waters which were under the firmament from the waters which were above the firmament," and 8. "called the firmament Heaven."

The same Hebrew scholar quoted above, Professor Fagnani, translates the original text into "let there be a vault." God having "made the vault and separated the waters which were under the vault from those which were above it," He "called the vault Heaven." The "waters" meaning the ether of space, we have seen, these verses tend to indicate

that "Heaven" surrounds the earth and that it is independent of the ether of space. SCIENCE: *The subject does not belong to the field of physical science.*

Genesis 1:9: "God said: Let the waters under the heaven be gathered together unto one place, and let the dry land appear," and 10. He "called the dry land earth and the gathering together of the waters called He seas."

The development of the earth and its seas follows here the logical sequence after that of the nebula. SCIENCE: *This corresponds with the sequence of events taught in cosmogony. Of special interest here is, with waters meaning the ether as a medium full to repletion (Hebrew raveh) of divers powers, that the waters are said to be "gathered into one place" to form the earth. This corresponds with the nebular offshoot which, by gathering into one area in space, gradually forms the dry land. This applies likewise to the ether condensed to form the seas.*

Genesis 1:11: "God said: Let the earth bring forth grass, the herb yielding seed, and the fruit tree yielded fruit after his kind, whose seed was in itself." 12. "The earth brought forth grass, and herb yield-

ing seed after his kind, and the tree yielding fruit whose seed was in itself after his kind."

These very important verses do not convey the true meaning of the original text. In the latter, "grass" does not appear, but "verdure" (Moffatt, Fagnani) green plant life, bearing seed of every kind and trees yielding fruit of every kind, each fruit with its seed. The essential feature here is the emphasis placed on "seed." SCIENCE: *This corresponds with the teachings of the modernized interpretation of evolution to the effect that the primordial seas contained the original cells or seeds of plant life, not meaning thereby, however, all plants, since new ones are constantly being evolved. The diversity of plants is also emphasized by the repetition of "every kind."*

Genesis 1:14: "God said, Let there be lights in the firmament of the heaven to divide the day from the night; and let them be for signs, and for seasons, and for days, and years;" 15. "And let them be for lights in the firmament of the heaven to give light upon the earth." 16. "God made two great lights, the greater light to rule the day, and the lesser light to rule the night; He made the

stars also." 17. "And God set them in the firmament of the heaven to give light upon the earth" 18. "to rule over the day and over the night, and to divide the light from the darkness."

The text is self-explanatory: it outlines the creation of the sun, which supplies light of day, and the moon, as a lesser light for the night, the participation of the sun in the division of time into seasons, years and days, etc. SCIENCE: *The sun, as nucleus of the nebula which formed the foundation of our solar system, developed as such concomitantly with our planet, an offshoot of the same nebula, while our moon is itself an offshoot of the glowing and gaseous earth after it had left the nebula. There is concordance, therefore, with the Biblical teachings on the question. But another sequence of events worthy of special attention is the introduction in the Biblical text of the sun at the time it was needed to sustain, by its radiance, light and heat, the life of plants which had appeared on earth.*

Genesis 1:20: "God said, Let the waters bring forth abundantly the moving creature that hath life, and fowl that may fly above the earth in the open firma-

ment of heaven." 21. "And God created great whales, and every living creature that moveth, which the waters brought forth abundantly, after their kind, and every winged fowl after his kind." 22. "And God blessed them, saying, Be fruitful and multiply, and fill the waters in the seas, and let fowl multiply in the earth."

Here, again, errors of translation from the original Hebrew text mar the true meaning and render it misleading as a source of study. As Professor Fagnani and other Hebrew scholars translate the first sentence of the 20th verse, it reads: "Let the waters teem with living creatures." SCIENCE: *This latter interpretation is sustained by science, the first cells of animals being regarded as having first appeared in the waters of the earth, while the earliest recorded animals are also aquatic, i.e., the Cambrian trilobites.*

The first sentence of the 21st verse is also wrongly translated. The Hebrew text does not say "whales" but "sea-monsters of all species with which the waters teemed." SCIENCE: *teaches that even among highly developed animals of this period all are aquatic, i.e., gill breathers. This included*

animals almost as advanced in development as some of the higher vertebrates, though still aquatic. Many different large fishes are meant, therefore, and not merely "whales."

An important omission in the 21st verse to which Professor Fagnani calls attention is that of "crawling things" after the sea-monsters. In the Hebrew text the word "creeping" (*remes*) is used, which has virtually the same meaning. This deficiency rendered unintelligible the presence of "whale" and "bird" in the same sentence. SCIENCE: *The importance of this correction lies in the fact that the crawling or creeping things in the original text refer to amphibians and reptiles which represent the links between fishes and birds. The earliest birds were in reality reptile-like, having reptilian teeth, claws on their wings, and long bony tails coming to a point.*

Genesis 1:24: "God said, Let the earth bring forth the living creature after his kind, cattle, and creeping thing, and beast of the earth after his kind; and it was so." 25. "God made the beast of the earth after his kind, and cattle after their kind, and everything that creepeth upon the earth after his kind."

The special feature of these verses is the stress laid upon "after his" and "their kind," thus denoting the desire to emphasize the specific nature of each kind of animal.

SCIENCE: *While Darwin's ideas prevailed, this specificity was contradicted by his belief that one species of animal could produce another species; that apes, for example, could become men. But this has never been shown in the case of any animal, the gap between one species and another having never been filled. There may occur several modifications during the evolution of any animal; thus, the horse a couple of millions of years ago was but one foot high and had four-toed hoofs instead of one; the camels were just a little taller than one foot; the elephant was no larger than the Newfoundland dog and underwent evolutionary changes of many kinds. But the same animal had but one pedigree, his own, beginning with his original cell. And it is this which corresponds with the Biblical emphasis "each after his kind."*

Genesis 1:26: "God said, Let us make man in our image, after our likeness; and let them have domination over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the

earth, and over every creeping thing that creepeth upon the earth." 27. "So God created man in His own image, in the image of God created He him; male and female created He them." 28. "God blessed them, and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it; and have dominion over the fish of the sea, and over the fowl of the air, and over every thing that moveth upon the earth."

These three verses are of *capital importance because they alone give the true version of the origin of mankind*, "each after his kind." To regard Adam and Eve as "our first parents" is a very harmful error as will be shown in the next section. Moreover, such individuals do not exist at all, Adam, in Hebrew, meaning "a man," while Eve means "life" in the sense of a spiritual entity. *SCIENCE: The study of evolution in animals has rendered great service to religion by pointing out the true meaning of the above verses, which is that "image" and "likeness" refer, not to the physical seed or body of man and woman, but to his God-like spirit. The physical marriage is inferred by the admonition to "be fruitful and multiply" which can only be accomplished through*

physical mating. Their spiritual nature is also indicated by their unique lordship over all other animals. This is confirmed in Genesis 2:7 by the complementary statement that "the Lord God formed man of the dust of the ground," referring to his body, "and breathed into his nostrils the breath of life," meaning His Divine Spirit, after which "man became a living soul."

Additional evidence to the same effect in the third chapter of this book makes this interpretation conclusive. *It is of cardinal importance because it identifies the part of man which is Divine, thus giving religion the one factor which should be cultivated and differentiated from the animal side of his nature, which, as shown in the next chapter, is the source of all evil in him.*

These newer interpretations of the first chapter of Genesis do not alone, however, meet the threatening situation described by Dr. Batten. The third chapter of Genesis, as currently interpreted, is as harmful, as urged in the third chapter of the present book under the heading of "The Causes of Atheism." It will be considered at length under the next heading.

THE HUMAN INHERITANCE OF ANIMAL
INSTINCTS AS THE CAUSE OF CRIME
AND IMMORALITY.

The misinterpretation of the Adam and Eve story referred to in the preceding section has served, in my opinion, to weaken greatly its wonderful lesson and the vigor of its warnings against the commission of evil acts and the severity of its consequences. We have seen also in the third chapter of this book, and as fittingly illustrated by the Scopes trial, that it is the most prolific source of ridicule to which the Bible is subjected by atheists, and others who might otherwise have believed in religious teachings compatible with logical reasoning.

In a catechism before me, the "fall" of Adam and Eve, is made the starting point of the "wrath of God" upon man, who is thus placed in "the power of sin, death and the devil," his "masters." Both ate of the fruit of the tree of good and evil, and for this disobedience are driven from Eden, with angels placed at its entrance to prevent return of the culprits.

Adam, however, as repeatedly stated in this volume, is not the name of a special individual, but the Hebrew word for "man" or "a man," while Eve, for reasons submitted in the third chapter of this book, does not mean a person at all, but "life"—the living spirit with which God endows all human beings.

With Adam and Eve thus excluded from the artificial rôle they are thought to play in the so-called "original sin" which made them our alleged "first parents," what becomes of the story itself?

That Adam and Eve cannot be "our first parents" and that our origin traceable to forbidden union cannot be the right interpretation is indicated by the fact that while in the third chapter of Genesis this alleged sinful conduct provokes severe arraignment from the Lord God, and a degree of punishment which is believed to have been perpetuated to this day, it is not only condoned in the first chapter, but actually blessed. Thus, whereas in Genesis 1:27, it is stated that

"God created man in his own image;
male and female created He them,"

the next verse, Genesis 1:28, states that

“God blessed them and God said unto them: Be fruitful and multiply and replenish the earth.”

Not only did He bless them but, to affirm their superiority over all other animals, owing to the “image” or Spirit of God of which they were to be “the temple,” He also said (Genesis 1:26):

“Let them have dominion over the fish of the sea, over the fowl of the air, over the cattle and over all the earth and over every creeping thing that creepeth upon the earth.”

It is self-evident, therefore, that far from being condemned by the Godhead, the normal process of reproduction between man and his wife is fully approved and even blessed, and that *the prevailing interpretation of the sin of “our first parents” is erroneous.*

Again, since, as we have seen, Adam and Eve do not in the Hebrew text and records represent individuals, they cannot have been our first parents, while *our only true first parents are those originally created with other animals and in their primordial form; they were special seeds Divinely anointed*

after our planet had reached a state wherein life was possible. This is all to be found in the first chapter of Genesis, *in absolute accord*, as regards their physical structure we have seen, *with the modern interpretation of evolution*.

All obscurities and contradictions disappear, however, when without "Adam" and "Eve" as individuals in the lesson, the "fall" in Genesis (2:23 and 3:1-24), as we shall now see, is interpreted as a *solemn plea to mankind to beware of the animal instincts* which the animal inheritance of the body includes, while vividly illustrating the destructive influence of sin upon the Divine spirit it contains.

To apprehend clearly the newer interpretation submitted below, a few of the deductions already reached must be clearly recalled. These are:

(1) That the human body belongs to the animal kingdom.

(2) That it is the "temple of the Living Soul" known in ancient Hebrew theology as Eva (Eve, Jeve or Havvah), the Divine Spirit.

(3) That Eva is this same Divine Spirit which a mother transmits to her child.

(4) That Eva is the guiding spirit of the human animal, known to us as "conscience."

(5) That the "Garden of Eden" does not mean a terrestrial garden, but heaven, a celestial abode reached by the humanized-spirit (the "soulspirit" in the original Hebrew text) after life only.

(6) That the tree of "knowledge" is but an abbreviation of the Hebrew text which refers to it as "the tree of knowledge of good or evil," this meaning in turn *a*, "good" due to the Divine Spirit in man and woman, and *b*, "evil" due to the promptings and temptations inspired by the animal instincts.

(7) That there is no such a thing as a devil excepting the animal instincts, the "flesh."

The "animal inheritance," as the salient inherited factor of evolution, is not only sustained by science, we have seen, but clearly defined in the first chapter of Genesis.

The far-reaching importance of this animal inheritance in its relations to crime is illustrated by the wave of juvenile crime in

this country at the present time. The murder and banditry, with the ever-present revolver ready to kill if need be, are mainly traceable to the indifference to cruelty and absence of all consideration for the suffering caused. This is a peculiarity of the lower animals.

This may be illustrated by the behavior in this respect of our little friend the house cat. She instinctively washes her face, purrs with pleasure when her back is rubbed, and in many particulars is a *bona fide* house pet. But let her catch a mouse then cruelty will at once assert itself. Supposedly to whet her appetite, she will torture the little animal over an hour at times, letting it go and catching it again and finally crunching it to death, preparatory to devouring it. Her cruelty with birds is proverbial. Indeed, she belongs to a family notorious for its cruelty, the *Felidæ*, which includes the lion and tiger, the latter of which in India destroys thousands of human lives a year.

Allowed to develop in the child without restraint until manhood is reached, this tendency to cruelty assumes proportions which places eventually such a man beneath the

worst of animals, for the instinct which in the latter underlies killing propensities is not cruelty, which they do not understand, but that of self preservation. Unlike human murderers, the timber wolf, for example, kills in practically every instance only to satisfy its hunger.

Moreover, we have in the wolf a close kin to our closest friend among the lower animals, the dog, notably the shepherd, the police dog, the eskimo, the spitz and many other *Canidæ*. In all these, when wild, it is, as in the wolf, the instinct of self preservation which evokes their killing propensities. When, however, they are in captivity and their physical needs are met, they lose their cruel instincts unless perhaps fear, an inimical cat, a rat, etc., stirs up anew the fighting spirit, itself a product of the instinct of preservation. But it is not for food that the murderous bandits which are infesting this country at the present time, kill; it is for money—the modern golden calf.

Analysis of the Adam and Eve story (leaving out repetitions and futilities, and introducing only such essential changes from the Hebrew text as will correct misleading

translations) as it occurs in the text will best serve to illustrate the meaning of the Divine admonition against sin that it is intended to convey.

At the end of the second chapter of Genesis (2:25), after the symbolic or figurative creation of woman from the rib of man, there is added an apparently superfluous bit of information to the effect that

“And they were both naked the man and his wife and were not ashamed.”

Far from being superfluous, however, this verse has an all-important meaning; it refers to the *spiritual bodies*, unclothed as such, before being incorporated into their animal bodies man and woman, for the Hebrew text does not say “wife” but “woman.” This is an important detail, for “man-woman” is the symbol in Hebrew lore of God’s own image, the Spiritual part of man.

“This divine couple,” writes Schuré,¹ “is not the first human couple on earth, but God’s self as manifested throughout the heavens. God created man in his own image; he created him male and female. This

¹ Schuré: *Loc. cit.*, p. 192.

divine couple is the universal spirit which, as Eva, manifests itself in all worlds. The sphere which it inhabits primarily and which Moses visualized is not the Garden of Eden, the *legendary* terrestrial paradise, but the 'limitless sphere' of Zoroaster, the 'superior land' of Plato, the 'universal celestial kingdom Heden Hadama.' " Thence it was that Eva, the *Divine breath or spirit*, entered the human animals, male and female.

What is the motive underlying the entrance of the Divine spirit Eva into an animal body on earth? Ancient philosophers have explained it, we have seen, by the desire of the Spirit to return to the Divine sphere whence it came, glorified perhaps by good deeds on earth. But the Divinity or any part thereof needs no such development, perfection being its meet. Again, such an object would eliminate the personal identity of the earthly body acting as its temple for its life's span. Finally, it would tend to indicate that the spirit itself is not a part of the Godhead, and but an essence of the Divinity.

The motive and aim is a far loftier one. It is a spark of God's own self destined to raise mankind when it will to the highest

destinies. By entering the human being which is to be its host during a lifetime, it endows this individual with its own identity as a candidate for the celestial kingdom. *For each of us*, indeed, if our conduct on earth is such as to warrant it, *the Divine spirit in us is virtually a key to heaven.*

Once immured in its human temple and its prisoner till death, the Divine spirit begins its controlling influence (conscience) over the animal inheritance of its host, that is to say, over its animal instincts typified by the serpent (Genesis 3:1):

“more subtle than any beast of the field which the Lord God had made.”

The aggregate of the many different animal instincts constituted the “tree of the knowledge of good or evil,” we have seen. There are many goodly instincts in animals: courage, fidelity, devotion, love, as in the dog, for instance, to cultivate, but there are also many evil ones to fear. Hence God’s warning (Genesis 2:17):

“But of the tree of the knowledge of good and evil, thou shalt not eat of it, for in the day that thou eatest thereof thou shalt surely die.”

To exemplify the consequences of disobeying the warning as regards yielding to passions of animal origin of any kind, the serpent is pictured in action. Grovelling in the dust upon its belly, cursed among all beasts, it prompts woman to yield (Genesis 3:6), so

“Woman” “took of the fruit thereof, and did eat and gave also unto her husband with her and he did eat.”

Here again, the Hebrew text does not say “husband,” but “the man,” a generic term which gives the text its true sense. It is not, therefore, to the normal marital union, blessed by God, we have seen, as this perversion of the Hebrew text would imply, but to the wrongdoing outside of matrimony, that all the above refers. While its meaning *extends to all kinds of crime*—quite in keeping with the French dictum “*cherchez la femme*” (seek the woman)—the juvenile criminality which is overwhelming this country we have seen is in part due to young girls who, as police records have shown, owe their presence among bandits to their love for some scoundrel. This fact would

warrant a new dictum: "*cherchez l'homme*" (seek the man).

That the animal instincts are solely responsible for all the crimes inferred is in fact sustained by the Bible itself (Romans 8:7) which clearly indicates that they are foreign to all Divine laws:

"The carnal mind is enmity against God, for it is not subject to the law of God, neither indeed can be."

As Sir Oliver Lodge recalled at the 1925 meeting of the British Association of Science, "Man was brought out from among the animals and given knowledge of right and wrong—was given knowledge not grudgingly but with an open hand. The power was his, and from that day it was left to him, and him alone, to rise or fall."

"Fall" in the present connection means collectively the major sins on earth: because it entails *loss of the most precious heritage in the whole universe: the living soul of celestial origin*, unless, as we shall see, the blessings of Redemption mitigate the sentence.

Recalling that the whole Biblical text on the subject is a divine admonition of the

danger of evil and that "eating of the fruit" the temptation of Eve and her fall afford but an example of what all departures from the path of honesty, virtue, etc., provoke as punishment in the end, the Biblical sequence of events following any major crime is symbolically as follows:

Conscience-stricken, under the violent reaction—lashings of their Divine Spirit—they try to conceal their crime (Genesis 3:7), as figuratively implied in the verse:

"The eyes of them both were opened,
and they knew that they were naked;
and they sewed fig-leaves together and
made themselves girdles."

Efforts to pacify or subdue the persistent wails of their conscience, their Divine Eva, were unavailing. Indeed (Genesis 3:8)

"They heard the voice of the Lord
God". . . . "and hid themselves."

The Divine Spirit being alone capable, we have seen, of contact with God—for "the carnal [or animal] mind is not subject to the law of God," we have seen—the man, to offset the reproaches of his spiritual con-

science, satisfies himself by shifting the blame on the woman (Genesis 3:12):

“The woman whom thou gavest to be with me she gave me of the tree and I did eat.”

while the woman's Eva, in turn, shifts it on the carnal passion, the serpent and said (Genesis 3:13):

“The serpent beguiled me and I did eat.”

To bear children under such conditions is to cultivate grief in many directions; often abandoned, difficulties of all sorts occur and a man capable of such a crime being of low nature and heartless, he becomes tyrannical if he remains at all (Genesis 3:16): Hence the Divine verdict (corrected translation) as to the woman:

“I will greatly multiply thy sorrow and thy conception; in sorrow shalt thou bring forth children; and thou shalt be subject to thy man and he will rule over thee.”

Man is then cursed through his Spiritual conscience because he yielded to his animal passion, the tree of evil, disobeying all inspirations from the good side of his Nature.

The decree of God is that he return to his animal state for the rest of his life, Genesis 3:17 (corrected translation).

“Unto the man he said: Behold thou hast harkened unto the voice of the woman and hast eaten of the tree of which I had forbidden thee to eat; cursed is the ground for thee and in sorrow shalt thou eat of it all thy life.”

Illustrating further that man is relegated to the level of the beast, he is told (Genesis 3:18) that

“Thorns also and thistles shall it bring forth to thee, and thou shalt eat the herb of the field.”

This is additional corroborative evidence that we are not dealing with our “first parents,” as Adam and Eve are generally thought to be, for thorns and thistles and herbs of the field are clearly indicated for animals—their state when divested of their spiritual guide.

Further emphasizing this meaning is the statement in Genesis 3:21 (corrected translation), showing also that woman shares the same fate:

“Unto man and also unto woman the Lord God made coats of skins and clothed them.”

thus metaphorically implying redescend to the animal state.

Again, to indicate that it is the animal body, to the exclusion of the Divine spirit Eva (Genesis 3:19), which is meant:

“In the sweat of thy face shalt thou eat bread till thou return unto the ground; for out of it wast thou taken; for dust thou art and unto dust shalt thou return.”

Finally, fully to emphasize the return to the soil of the sullied body reduced to the animal level, for which the Divine soul can no longer be a loving associate and guide, is God's mandate (Ecclesiastes 12:7):

“Then shall the dust return to the earth as it was; and the spirit shall return to God who gave it.”

Here again science proves itself of great elucidative value. By pointing out the true meaning of evolution, it identifies the animal source of crime, and particularly at a time when appropriate measures may aid in reducing, at least, its deep inroads among the youth of the whole country. It has done

more: by placing the evolution theory on a sound basis science has emphasized the importance of man's spiritual self. This may serve to prevent, in the future, sacrifices of untold spiritual existences. What this means we have just seen. Sin is sin and crime is crime in the eyes of God, and the penalty is not one inflicted by Him. It is a *natural consequence*, for, as we have seen, the animal or carnal minded are no longer subject to the law of God. And this applies to all major sins.

It is here, however, that Christianity may once more lead to the Divine haven irrespective of the dangerous rocks upon which the ship of human fate may have become wrecked. The intensity of the lure and other circumstances may in part mitigate the guilt, and spiritual death be avoided by repentance and compensative efforts. The tree of life—of spiritual life—whose branches, God's own, are steeped in loving pity—affords means of redemption where sincerity prevails. Even where the example afforded by the text prevails, compassion for innocent victims of the sin may become a strong source of appeal. Through Him, in fact, the carnal parents, yielding to the love their offspring

inspires, may redeem their spiritual souls, their child then becoming the intermediary for their atonement.

“Forasmuch then as Christ hath suffered for us in the flesh, arm yourselves likewise with the same mind, for he that suffered in the flesh hath ceased from sin.” (1 Peter 4:1.)

The meaning of the Adam and Eve story, purified, thus finds its normal explanation. Briefly, man, *mankind*, is *warned against the dangers of sin* and told that its major forms, mean loss of the Divine Spirit which otherwise, having acquired individuality by its temporary stay in the physical body, would have returned to the heavenly realm.

The “original sin,” then, does not mean the connubial relations of our so-called first parents Adam and Eve, who never existed as individuals, but *our animal inheritance, which as “serpent” tends to destroy us unless mastered*. The term “serpent” here is likewise symbolic, as is that of “devil,” the figurative tempter, who *with his horns, tail and hoofs typically represents the animal in us*, the source of perdition if we allow its evil influence to prevail.

CHAPTER VII.

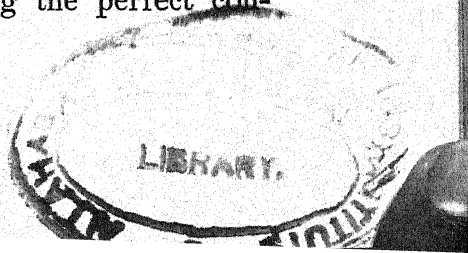
THE CONSCIENCE AS THE INTERNAL VOICE OF THE DIVINE SPIRIT.

THE DIVINE SPIRIT, MANIFESTED THROUGH THE CONSCIENCE, AS THE MORAL GUIDE OF MANKIND.

THE various causes of the "fateful hours through which Christianity is now passing," according to Dr. Batten and many other members of the clergy, appear to me to have been accounted for in the foregoing chapters.

We have seen that many errors of translation in Genesis necessarily caused misinterpretation of its true teachings and that, bearing as they did upon fundamental questions such as creation of the universe and of man, they compromised the integrity of the entire Christian doctrine. Elucidated through the light shed by science on Genesis, however, it no longer presents elements for controversies between literalists and dissenting interpreters of the text.

On the whole, elimination of the errors in Genesis, by demonstrating the perfect con-



cordance of the teachings of the original Hebrew text with modern science, has accomplished three important missions: (1) It has supplied a far stronger foundation for the Old Testament, *i.e.*, for the Jewish Faith, particularly among those who have considered Genesis as negligible on the plea that it is made up mainly of Oriental legends; (2) it has through the same elucidative process removed all opportunity for ridicule such as that addressed to the Adam and Eve story and other misleading interpretations; and, (3) it has demonstrated the soundness of the fundamental doctrine of Christianity, our belief in God, the Father of Christ and all mankind. It seems permissible to conclude, therefore, that *Christianity is in reality stronger today than it has ever been.*

We may well agree, therefore, with Bishop Manning, of New York, when he wrote two years ago, that "this is not a day of discouragement or of misgiving, but of great and perhaps unprecedented opportunity for those who preach the Gospel of Christ. Two things are opening the door wide to the preaching of the gospel. One of these is the

new hope that is now stirring in the hearts of men, the other is the world's present desperate need. Great visions of peace and world brotherhood are before men's minds. It is the gospel which has produced these visions. It is the gospel only which can bring them to fulfillment," particularly, I would add, if the errors in Genesis and others submitted are given due consideration.

Indeed, Genesis is essentially the portion of the Bible dedicated to God Himself, and by contributing evidence to His presence in all nature, which means the universe as a whole and its multitude of functions and manifestations, science has done much towards placing belief in Him where doubt reigned on a solid foundation. This in itself places the Gospel on a plane which should claim increased confidence, for the scientific proof which established as a truth that the Hebrew records were the Word of God, thus verifying the accuracy of teachings dating back over thirty-five centuries, simultaneously indicated that the revelations of God, through His Son, which treat of spiritual and heavenly things, likewise convey Divine messages worthy of absolute faith.

The soundness of Christianity becomes a living truth when, with God as the source of inspiration, we are asked to believe that He established a spiritual relationship with us through Christ, and destined Him to enlighten the world. We have seen in the third chapter that *all* human beings are endowed with a Divine Spirit, and that the doctrine of evolution had emphatically detached this Spirit from the physical body by demonstrating the animal nature of the latter. We have seen also that it was the superior intellect of man and his nobler instincts which detached him from the rest of the world—from all other animals—and which made of him the “lord of creation.”

It is not difficult to believe, under these conditions, that One man should have been gifted with a Divine Spirit infinitely greater and superior in those qualities which distinguish man from all else in nature, intellect, pity, sympathy, altruism, mercy, tenderness, judgment, equity, creative power based on deductive reasoning, conscience, morality and the notion of right and wrong, belief in a Superior Being and immortality. One has but to recall what one man such as Pasteur—

whose countenance graces the frontispiece of this book—has done for the world either directly, or indirectly through his followers, and realize that at least two hundred million people would not be living today had he not come to earth, to be impressed with the possibilities and the far reaching powers of one Divine Spirit laboring lovingly for the sake of God and humanity as did Christ.

Need one doubt in the face of such an example—so modern that some of us can still speak as eye-witnesses of the pre-Pasteurian era and its horrors—that a Christ could also have lived whose purpose in life was to urge upon us that we harbored a spark of God,

“The true Light that lighteth every man that cometh into the world.” (John 1:9.)?

Cardinal Manning,¹ Westminster, London, defined this human endowment clearly fifty years ago when he wrote: “Every living soul has an illumination of God in the order of nature *by the light of conscience and by the light of reason, and by the working of the*

¹ Cardinal Manning: “The Internal Mission of the Holy Ghost,” London, 1875, p. 18.

Spirit of God in his head and in his heart." I may recall in this connection that stress was laid repeatedly in foregoing chapters upon the *conscience as the internal voice of the Divine Spirit*. Nor is it a special heritage of any one race, creed or color, this Divine endowment; as the same distinguished prelate states, its "working is universal in the soul of every individual."

In all mankind, then, in the light of all the data submitted, scientific and religious, we find the existence of a Divine soul (or Holy Ghost) which manifests itself through the conscience and as such, therefore, subject to the decision of the mind to accept or reject the plea of Divine Spirit to remain on the path of righteousness, as against the promptings of the animal passions—the symbolic "devil" as we have seen. Each individual man or woman, therefore, is a free agent to do right or wrong. And it was against these ever present dangers within ourselves that Christ's Divine mission came to warn us, sacrificing His life on the altar of devotion to us all rather than deny his mission. As stated in Matthew 20: 28:

"The Son of Man came not to be ministered unto but to minister, and to give His life a ransom for many."

Hence the fact that Christianity is essentially a religion of redemption in which the love of God is transmitted through His Son to mankind, but in which the Son bids us, in the name of that Divine love, to follow the right path—that which eventually leads to immortality—a sacred message to us, indeed,

"Because Christ also suffered for us leaving us an example that ye should follow his footsteps." (I Peter 2: 21.)

The mission of Christ was and is today to prevent evil and to redeem where adequate repentance and reparation make it at all possible. In conformity with the mandates of His father, however, and where impenitence with trampling of moral obligations persist, sin is not condoned, "tribulation and anguish upon every soul of man that doeth evil" being totally divested of indiscriminate indulgence. Favoritism is not compatible with justice.

Perdition thus becomes the consequence of persistent refusal to listen to the voice of

what may truly be called our Divine conscience, God's voice in us, to beware of our animal mind and instincts, and not to yield to their temptations.

A striking feature of the evolution of religion as represented in the Old and New Testament is its equity, with love of mankind as its inspiration. Its beginnings were laid in the remote past, doubtless, as some hold, in Oriental legends and primitive folklore. An important fact is generally overlooked, however, in this connection: this is, as previously stated, that evolution prevails in psychology just as it does in all pure and applied sciences. When the human animal had progressed sufficiently to reason coherently, the dawn of spirituality occurred as the expression of an endowment dating back to the original cell in the primordial seas. All human beings, irrespective of their mental level, even savages of the lowest type, show some evidence of their belief in the presence in them of a soul or spirit and its perpetuation after death. Whether adoring a mere stick of wood, an animal or emblem, some invisible Deity is the real object of their cult—an instinctive longing for the Great Spirit.

Just as we found God behind all nature, supplying the self-evident intelligence which alone accounts for the wonderful coordination of the whole universe, the formation of matter, our earth, plants, man, etc., so is He behind the evolution of what probably is His ultimate aim: the development of spiritual entities versed in the suffering of mankind and able to participate with Him in the alleviation of these sufferings.

The higher psychic expressions of man, enlightened by the Divine Spark, were already of a high order many thousands of years ago. The so-called Oriental legends were fraught with a deep meaning that the mechanistic civilization of our day fails to understand. The early Aryan Vedas, the trinity of Krishna which preceded Buddha by twenty-four centuries, and gave the religions of India their foundation, the Egyptian traditions registered hieroglyphically on stones, tablets, etc., are but evolutionary gradations quite as Divine in their ultimate aim as the cosmic and creative phenomena we have reviewed. They all served their purpose, filling the needs of the times and the psychology of the peoples for whom they were intended.

All, however, had the Divine self in common, even though spiritually visualized by them in most instances through concrete objects.

Then came the great step of the prophet Abraham who initiated the downfall of idolatry, transforming polytheistic beliefs into monotheism, *i.e.*, the recognition of a single Divinity, one God above us all, an inspirational conception which another great prophet, Moses, brought to fruition. The whole evolutionary process before this period had not as yet exhibited its real trend, the needs of the people being fear of the Divinity.

The chapters of Genesis analyzed in the foregoing pages indicate rigid interpretation of sin. This is due to the fact that Genesis, the Jewish part of the Bible, was in reality a code of laws having for their purpose to mitigate and finally abolish the evil practices which prevailed at the time, mainly as a result of idolatry devoid of all spiritual Divine foundation. The Jewish laws were justly severe, but the good of mankind was clearly discernible on all sides. Crimes, for instance, involving the purity of womankind, were punished with rigor. Even when appropriated as booty of war, a woman was treated

as a wife. Hence the severity of the punishment meted out to evil doers of this class in the "Adam and Eve" story analyzed under the preceding heading—which but pictured the Jewish attitude towards all sin.

The appearance of Christianity, however, added a new note to the evolution of religious thought: that of love of God and humanity. "Love one another" became an object in life, with active sympathy for the indigent, the oppressed, the sufferer and the sinner, the aim being to look upon the sin itself with abhorrence, and upon the sinner as a possible object of redemption.

Christianity appears in its true glory as the essence of Divine love, however, when it is analyzed through the light of its evolutionary past, back to the time when, many thousands of years ago, man's development had progressed far enough to enable him to recognize his instinctive longing for God and for the heavenly realm. But the link with God is traceable still farther back many millions of years, to the primordial seas. It was here, in the primal cell destined to become man, that the Divine Father endowed mankind with the power of becoming the

temple of *the most precious gift in the world—that which really constitutes man—a spark of His Divine Self.* It was then, by endowing their original cell with its affinity for His spirit, that He “created man in His own image,” “male and female,” and “blessed them,” giving them control over everything on earth as a token of His parentage which eventually would lead them to heavenly bliss.

“For God so loved the world that He gave His only begotten Son that whosoever believed in Him, should not perish but have everlasting life.” (John 3:16.)

It is a message of love from the Heavenly Father that our conscience conveys to us, therefore, whenever it pleads with us to resist temptation. It is for us to decide whether our animal instincts are to be allowed to prevail over God’s love for us and all that it means. As urged by a distinguished clergyman of Philadelphia, Dr. Floyd W. Tomkins, in a published sermon:

“This great gospel truth of ‘God with us’ opens to us the glory of eternity. Being members, through this new birth of Christ, of the heavenly family

though still struggling on earth, we look forward to the endless years when 'at home with God' we shall enter upon our inheritance."

CULTIVATION OF THE DIVINE SPIRIT
IN THE CHILD.

The many directions in which the Divine Spirit may be cultivated to prevent or counteract the wrongdoings or vices due to our animal inheritance can be studied more profitably by the clergy than by a layman. A few words on its bearing upon the development of children, however, may prove useful.

In one of his published sermons, Dr. C. H. Parkhurst refers to a little blind girl who, on being told that the Being she worshiped was called God, said, "I did not know His name, but I know Him." Commenting on the source of this instinctive knowledge—"instinctive" because it is found in all human beings irrespective of their psychic level or of their race—the same eminent clergyman remarks: "We cannot embrace God by our thought but we can sense Him by our love. For love is the same in both worlds and is

the bridge by which we can span the infinite chasm" "The child is very close to the Kingdom for the reason that its affections have not yet become confused by its thinking." I might add another reason submitted in the third chapter of this book, and which harmonizes with Dr. Parkhurst's statement: a child is at first undisturbed by its environment, physical and psychical, and is nearer to God in its purity, as abode or temple of the Divine Spirit which it has received through its mother, nurtured and swathed in a haven of maternal love. As we have seen, the infant

"shall be filled with the Holy Ghost even from his mother's womb. (Luke 1:15.)

It is this lily from heaven which needs devoted protection and watchfulness during the dangerous periods of childhood and adolescence. The struggle between the animal instincts of the child is keenest, with the chances greatly on the animal side, during this period of life, owing to the exuberance of all functions, physical and psychic, and the slight control that the conscience can ob-

tain over the untutored animal mind. It is here that the dutiful parent fulfills a Divine mission, by leading the child in the right path, which means here, pointing to the dangers on earth and in heaven through subserviance and obedience to unrestrained animal passions, which later lead to the pit of sorrow regardless of the gain any evil practice may obtain.

“What is a man profited if he shall gain the whole world and lose his own soul?” (Matthew 16:26.)

The animal passions and instincts in an infant usually begin to show themselves after the memory has been developing some time. Smiling at parents or other persons it cares for may, for instance, begin as early as the third week in some, though usually two or three weeks later. This is the incipient memory, since it denotes recognition and remembrance of the person smiled at. The true memory, however, that capable of receiving lasting impressions, appears only when the child is two and a half years old and is quite marked during the fourth year. This period marks the dawn of mind when the conflict between the animal inheritance

in the child and its Spiritual self begins to assert itself.

It was formerly thought that association of ideas, thinking, reasoning, were essential to the human mind as individual "faculties," as they were called, of the soul. At present, however, animals are well known to carry out these mental processes also, through impressions received by way of their senses, the sight, taste, hearing, etc., the animal brain combining these impressions to build up what is termed a "perception." All these qualities and the processes in the brain through which they are manifested are similar in the animal and child, both being of the same source. They are all animal functions, and in the child due also to its animal structure or inheritance.

"Animal inheritance" does not mean bad traits only but also many qualities, common to both animal and child, including some of a high order. Thus, as we have seen, animals often show affection, great devotion, faithfulness, tenderness, and other fine traits. Such an animal, the dog, for instance, may appear far more intelligent than a child of the same age. This is because the mind of

animals develops far more rapidly. Even though they are of animal origin, these qualities should be cultivated in the child along with other laudable traits that it may show. Appreciation and encouragement are potent factors in this connection. Brutality avails nothing and cultivates stubbornness. The child should be held on a high plane.

Unfortunately, the animal inheritance in the child extends beyond these finer traits. Due to instincts developed in the course of the evolution of their species, as defensive measures, self preservation, etc., and perpetuated, animals show cruelty, selfishness, stealing propensities, greed, violent temper, disregard for all other animals, particularly where food is concerned. The fox stealing chickens, the cat and dog stealing meat are familiar reminders of traits in animals which a child may owe to its animal instincts, unless taught early that it is one of the worst crimes he may commit since it is one of those which frequently lead to murder. We shall see in the next section to what extent stealing prevails in this country and that a large proportion of the children of various States consider it as quite permissible!

Judge Gary, Chairman of the United States Steel Corporation, has recently urged the utter folly in this era of great opportunities, to resort to dishonesty to succeed in anything. "Square dealing is becoming more and more the rule in big business, and the young man or woman looking to his or her future welfare would do well to take the Golden Rule as a foundation on which to build." Indeed, *honesty should be taught in every home, in all schools and from every pulpit, if the children of today are not to perpetuate the prevailing crime tide.*

Parents in training their growing child and watching for any deviation from the path of righteousness should remember that the *conscience of the child is the voice of its Spiritual self.* By cultivating the child's knowledge of this Divine influence and aiding it by kindly explanations to realize that He is with it all times watching, watching and watching for its own good on earth and in heaven, parents will themselves become a part of the Divine mission and love, added to their own. Prepared as we have all been in the primordial seas to become the spiritual images of God, these anointed seedlings,

through evolution, perpetuate the blessing until the human brain, sufficiently developed, can assume its true rôle in the cosmos. The time finally arrives, however, when, loved of God and loved of man, the human mother assumes her truly Divine rôle, that of acting as the link between God and her offspring for its spiritual self.

Parental well directed efforts soon bring their reward. As Professor J. Mark Baldwin, one of our most distinguished psychologists wrote some time ago concerning sentiment, an efflorescence of an expression of animals in man: "The thought of God gives rise to the *religious* sentiment, that of the good to the *moral* and *ethical* sentiment, that of the beautiful to the *esthetic* sentiment. These sentiments represent the most refined and noble fruitage of the life of feeling." But I would add, sentiment in the animal, the expression of devotion and love of a dog for its master, for example, can only act as subsoil for the seed. Indeed, the religious, moral, ethical and esthetic sentiments are not witnessed in the best of our animal friends. It is here that the Divine Spirit exerts its influence for good—an ever-

present white light in our soul which will never fail those who respond to its pleadings.

Having carried out their sacred duty to prepare the minds of children at a tender age, they have twined the vine in the proper direction, utilized the kindly instincts of their animal nature to the best advantage, while evoking a sentiment which has much to do with the whole question in point and limited to mankind, the *knowledge of, and distinction between right and wrong*, which enables them to thwart those animal instincts which prompt evil.

But they have done more, for they have prepared the mind of the child for the higher manifestations of the specific inherent powers of the Divine Spirit in them, *God's own*. It is then that the rôle of creator asserts itself through science, art, literature, etc., consciousness of what is noble and true, altruism, firm belief in God and the prolongation of life after death and the ability through spoken language of developing all higher relations and understandings. They have led their child in the Divine path and earned for it and for themselves eternal blessings.

THE CONSCIENCE AS A FACTOR IN MEASURES
FOR THE PREVENTION OF IMMORALITY.

When the school age has been reached, the training of a child, particularly if public schools must be attended, is a serious problem under present conditions. All factors which should protect his moral future appear to have conspired to facilitate his downfall, *e.g.*, home and school conditions and religious controversies.

With regard to the home influence, through which the child should receive both religious and ethical training, we are brought face to face with a deplorable state of things.

President Coolidge, in a recent address (October 25, 1925), attributed to decreased parental influence, at least in part, the crime wave described in the first chapter of this book. "There are too many indications that the functions of parenthood are breaking down," the President said. "Too many people are neglecting the real well being of their children, shifting the responsibility for their actions, and turning over supervision of their discipline and conduct to the juvenile

courts. It is stated on high authority that a very large proportion of the outcasts and criminals come from the ranks of those who lost the advantages of normal parental control in their youth."

The dangers to which childhood and adolescence are exposed today are far greater even than President Coolidge's timely admonition would tend to suggest. Mr. Child, who conducted the extensive study of the "crime tide" in this country, also reviewed in the first chapter of this volume, remarks in this connection: "It is about time to face the fact and remember that substantially the whole burden of responsibility for the sweeping torrent of youth into lawlessness which swells our already scandalous felony record rests on the failure of the American homes." The press of the whole country has emphasized this fact so frequently of late that it need only be recalled.

A physician is inclined, however, to discriminate closely because of the nature of his profession. He witnesses in his daily work the finer sides of mankind, its capacity for devotion, self sacrifice and love when the life of a child is in danger. In his experi-

ence a large proportion of parents are as dutiful as they ever were, but the conditions have so changed as to render their task far more difficult than it was formerly. Then, the tide was entirely in the direction favoring parental advice; now, the tide is entirely the other way. Nor would he concur with those who contend that all young people are now refractory to good advice; he would hold that the proportion of pure-minded girls and boys with gentlemanly instincts is still very large. On the whole, he would adopt the general principle of *aiding all parents*, including the derelict, to realize the dangers to which children are exposed nowadays and to protect them by adequate religious and ethical training.

The public schools and also the various churches come in for a great share of responsibility. It should be fully realized, in fact, that public schools, under existing conditions, and despite the faithful efforts of their teachers, are dangerous sources of contamination through the fact that all children—including those from homes in which drug addiction, alcoholism, crimes and vices of all sorts—must attend school by law.

It is here mainly that the wave of immorality and crime which is growing apace with time among our adolescents, finds its main sustenance. This is shown in several directions. Dishonesty, for example, is strikingly prevalent among children. In a study of the question throughout the country covering four years, Professor Athearn, of Boston University, found that both in the East and Middle West, between twenty and eighty per cent. of the children of various communities did not deem it wrong to get money dishonestly, particularly from lawyers, bankers, landlords, manufacturers and railroads. To a hypothetical question as to what they would do if sent out to buy something for twenty cents and it cost only ten, children between seven and twelve years of age who would keep the dime averaged in Brooklyn, sixty-six per cent.; in New York City, seventy per cent., and in Northern Massachusetts, forty per cent.!

Professor Athearn attributes all this dishonesty mainly to failure of the churches to do their duty in the public schools. Speaking as a Director of the Institute of Social and Religious Research, he contends that

"the cause of crime is not that children are more depraved than ever before, but because we set up a system of secular education to secure a high intellectual level in the youth of our country, and then to protect the religious liberty and political liberty we removed religion from the public schools. We charge the church," writes Prof. Athearn, "with being the major cause of crime. The church told democracy one hundred years ago to separate religion from the state; the church would take care of the moral training of the young, the state of the intellectual training. The church has failed lamentably in its trust. We believe that the crime wave in America will continue as long as the church fails in its duty to provide adequate religious, moral or ethical training for the young." In other words, it is the "dog in the manger" attitude of the various churches which causes the children to be sacrificed in the public schools through lack of adequate training.

The views I have submitted in the foregoing chapters appear to me to have afforded a common ground for the rectification of this great drawback. The solidity of the

theistic doctrine having been greatly strengthened, and God being the recognized Head of the three great faiths, Protestant, Roman Catholic and Jewish, restriction of the religious instruction in schools to the Godhead and ethics, including particularly honesty, leaving all else to the particular church or denomination to which each pupil belongs, would settle this knotty question and give each child a solid religious foundation for any creed.¹

It is quite evident in the light of these various sources of moral deterioration that evolution even as misinterpreted by its critics, is not the sole source of iniquities. But it contributes its share, as misunderstood, in the furtherance of atheism. Thus, the pupil even when favored by home, church and Sunday-school training, finds the Biblical teachings on creation thus acquired all contradicted and perhaps annulled by solid data placed before him at the high school or college he attends. Illogical statements from the Bible *versus* sound reasoning based on

¹ The children of objecting free thinkers and atheists could be excused but by special request by letters which should be kept on file.

facts, soon decide the issue: atheism wins the day.

Hence the recent statement of Bishop Freeman, of Washington, in reference to the Bible: "By many it is tolerated as essential to the social order, but it is neither respected nor revered as it once was and its authority is challenged and questioned." And why should it not be? I have shown that it contains many man-made errors which pervert its text and divine meaning. The remedy lay, therefore, precisely in eliminating these errors and restoring thereby the authority and respect the Bible formerly enjoyed. It is this rôle which I have attempted to enact.

But this is not all. We have seen that evolution as shown in the preceding chapter harmonizes with that outlined in Genesis and also in the second chapter, that it coincides with and sustains religion in every way. Why not teach this to the child? If this were done, there would be no contradiction of what he had previously learned in his religious studies and instead of becoming an atheist, his religious belief and faith would only be fortified.

The child should not be confused by the various theories extant. He should be taught only the elements of evolution. A wonderfully interesting primer or little book could be written for children, showing in the simplest words and by illustrations how birds developed from fishes by way of the reptiles; horses from much smaller ones with four toes; elephants from little beasts hardly the size of a pig, etc. "Evolution" then would no longer be a source of discord or even of distrust.

Non-sectarian concordance in schools and elimination of dissensions on the evolution question being provided for, how can we deal with the deficient home training problem?

We have seen that President Coolidge attributes the crime wave in this country to decreased parental influence. In doing so he but voices severe condemnation from many directions. Judge Archbald, of the Juvenile Court of Los Angeles, for instance, holds that "about ninety-five per cent. of youthful delinquency today can, for the most part, be blamed on bad home conditions." Commenting on these and other authoritative opinions, Mr. Child remarks: "The respon-

sibility is not to be passed on to nurses, governesses, public-school teachers, or to the asinine philosophy that children must be free to develop in their own glorious self-expressiveness without guidance or companionship." Hence the proposal from various directions to discipline the parents for neglect of duty to the children!

Brutality is once more raising its foul head. It is my opinion that the sooner the country overcomes its growing tendency to resort to this lowest of animal instincts to attain its ends, the sooner it will succeed in bringing them to a successful issue. Particularly does this apply to the decreased parental influence problem.

We have to contend in this growing trait with another evil result of the "original sin" fiction of Adam and Eve—both mythical individuals as we have seen. The Calvinistic doctrine was but one of its baneful offshoots. Not content to picture God as cold, heartless and brutal, who looked upon us, His creatures, as loathsome products of this disobedience, it doomed infants, our offspring, to everlasting hell fires as the ultimate progeny of the guilty pair, inflicting heart-

breaking sorrow upon mothers in numbers untold.

Science has never unearthed a vestige of proof sustaining our descent from this so-called first pair, and for many decades has been urging its invalidity. In keeping with this sound attitude, I submitted in the preceding chapter a totally different interpretation of the Adam and Eve story, but one fully compatible with God's true nature—a Paternal admonition to beware of our animal instincts, the sources of sin.

If the "death, doom and destruction" product of the "original sin" misconception is referred to here, it is because there still lurks in the religious teachings of our day, so much of the "fear God" element that His dominating attribute, love for us all, is obscured and often lost. As is stated in I John 4: 16:

"We have known and believed the love that God hath to us. God is love; and he that dwelleth in love dwelleth in God, and God in him."

Many of us resent today being driven to do what is right through fear. Experience based on several decades of contact with

medical students has taught me that affection for them and their full knowledge that I held them on a high plane has made the teaching career a blissful one for me. What can be done with our young men and women can certainly be done with the mothers and fathers of children whose welfare it is the duty of each one of us to protect. Indeed, as stated in II Timothy 1:7:

“God hath not given us the spirit of fear, but of power, and of love, and of a sound mind.”

And a “sound mind” in the present connection embodies another Divine attribute, *conscience*. Here again we are dealing with a scientific fact solidly anchored by usage, as denoted by the expressions “quickened conscience,” “troubled conscience,” “conscientious scruples,” etc. Conscience is also solidly established as a philosophical entity. While, as we have seen, Cardinal Manning, of Westminster, many years ago stated that “every living soul has an illumination of God by the light of conscience,” he¹ also defined conscience as “the reason judging of right

¹ *Loc. cit.*, p. 227.

and wrong." And if we ask what "reason" means, the great English prelate answers that "the *human* reason is that part of our nature which is in the most immediate contact with God, and the reason in us is, therefore, in a special way the image of God. *It is the light of God in the soul.*"

It is this light which should guide our treatment of the parent and home influence question.

No people in the world are more amenable to appeals through the heart and soul than are the American people. The whole world knows this through their never failing tenderness and aid whenever suffering could be reduced through their generosity. What, therefore, may we not expect when we appeal to such people on behalf of *their children*?

If the message of this book has been conveyed as intended, it is that religion and science closely interwoven and working for the good of mankind have enabled us to teach a child that *God loves him and protects him; that forming part of him, God is constantly present; that God's voice is that which he hears through his conscience, and that his conscience is itself a part of the*

Divine intelligence of which his body is the abode during life, and which returns to God after death.

What parent would not aid God and do his all with Him to save his own child? My experience of nearly fifty years of medical practice enables me to answer this question. I have never seen a mother fail in her devotion to her child—except one and she, poor woman, died in an insane asylum. And I have every reason to believe that a father's love is as unfailing. I have seen parental love in the slums, the hut, and the palace. Where normal mentality prevailed, *i.e.*, where insanity, drug addiction, alcoholism and other vices did not pervert normal inclinations, it always stood out as the most dependable of human qualities, the very essence of God's own love.

An appeal to this noblest of sentiments will soon evoke response and a first great step will have been taken towards the effective protection of the millions of children now exposed to conditions which may entail degradation and moral death for many of them. Many of the mentally undependable referred to above will not respond; it is here

and here only that protective measures on behalf of their children can be exercised within legal limits.

On the whole, the prevention of immorality in our growing generation is dependent upon procedures which can all be carried out. These measures are:

1. *Non-sectarian teaching of the solidity of the theistic doctrine in all public schools, thus affording a solid background for any creed taught at the home or church of each pupil.*

2. *Teaching of the elements of evolution in schools in such a way as to illustrate the existing harmony between science and the Biblical version of creation, including that of plant and animal life with man as the only animal endowed with a Divine spirit and mind.*

3. *A country-wide campaign appealing to all families to realize the growing dangers to which their children are exposed and suggesting kindly measures through which they may be protected.*

4. *Active measures to protect children who through their immoral, irresponsible or unwilling parents are doomed to a life of immorality and crime.*

In the latter connection the great wealth which has accumulated in this country could contribute to the redemption of its most exposed youth of both sexes to a degree almost beyond computation. We have many houses of correction, reformatories, etc., but they are intended for youths who have already fallen into the tentacles of wrong doing in its many forms. What is needed today is a class of institutions in which the *protection of children exposed to contaminating environments* will be taken care of and brought up with due tact and consideration, as good and honest members of every community.

Laudable efforts are being made in this direction by various groups, brotherhoods, societies, welfare workers, etc., but the main harmful factor is unavoidably perpetuated by all such means, *viz.*, the continued exposure to deteriorating home influences. Hence the need of institutions in which the child would reside, be educated and trained in the path of righteousness.

Men and women of means who would create and foster such institutions would not only do incalculable good but they would experience on earth much of the bliss that is

promised us all in heaven—a glow in that spirit which God gave us and whose expression manifests itself through our conscience. And when we bear the motive in mind, checking the wave of crime which is engulfing our youth and threatening increasingly the childhood of the entire nation, the very pillars of its future, we should remember Emerson's lines:

So nigh is grandeur to our dust,
So near is God to man,
When duty whispers low: *Thou must*,
The soul replies, *I can*.